

Image Effects: How Brand Images Change Consumers' Product Ratings

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It is the mind that creates the world.

– The Buddha

This thesis is a milestone for me. It was hard work – and a great pleasure, too. Looking back, the idea of investigating image effects was a lucky strike. For one, because I found most interesting results. But also because I found a research question that held my utmost fascination, day for day. I feel very satisfied and wish to express my appreciation to all who helped me achieve this.

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Abstract

The aim of my dissertation was to investigate image effects in consumer behavior. I examined how strongly product evaluations are influenced by brand images and if image effects can be explained by consumers' levels of involvement, knowledge, usage and satisfaction. In doing so, I focused on the importance of image for consumers and treated it as a unique factor for understanding consumer decision making.

In Chapter 1 I laid the grounds for empirical image research by anchoring the concept in its historical roots, considered relevant philosophical implications, and proposed an accurate definition. I then outlined an empirical framework by embedding it into the closely related domains of dual-process models, stereotypes, and heuristic decision making.

In Chapter 2 I described the first study. Using newspapers as product domain, I established a scenario for image manipulation. The main hypothesis that brand images influence product ratings was confirmed. The respective hypotheses that this influence would be moderated by consumers' levels of involvement, knowledge, and product usage were not confirmed. I found further that image effects are stronger for more salient images, persist on holistic and detailed rating levels, and affect not only product ratings but also consumers' self-reports.

In Chapter 3 I presented the second study, which served to replicate the image effect in a domain with less salient images and to elaborate the moderating roles of involvement and knowledge. The findings confirmed the main effect of image and its independence of involvement and knowledge. Further, image was found to be more important for product ratings than actual customer satisfaction.

In Chapter 4 I discussed the importance of the findings and drew references to related research. Finally, I explained my findings in terms of the proposed theoretical framework and suggested the next research steps.

This research is of relevance mainly for three target groups: Consumer psychologists are encouraged to consider image effects in future studies. Brand managers will recognize that image research allows for insights far beyond traditional methods. Consumers may clarify their perceptions of brand products – by being aware of the influence of images, they can possibly make better choices.

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1 Introduction

When asked for the safest car brand, most people in Europe will answer: „*Volvo*“, „*Mercedes*“ or „*Audi*“. That sounds plausible – but it’s incorrect. According to an objective, independent committee for the assessment of car security (EuroNCAP, 2006), the French manufacturer *Renault* offers the safest overall lineup of cars, followed by *Citroën*. Although the others have caught up in the meantime – looking back on longitudinal crash test data, this statement still holds true. Another example can be found in the world of personal computers. When asked: “Which operating system is better: *Apple Mac* or *Microsoft Windows*?” many computer users answer: “*Mac*”. In fact, independent comparative studies show that both systems just about measure up to each other (e.g., Pouliot, Scariati & Moriarty, 2008).

Many similar examples could be listed. Obviously, consumers’ product evaluations are sometimes quite inaccurate – even when relatively expensive products are evaluated, like cars or computers. Why is that? It seems that in many consumer decisions, facts play a subordinate role, and judgments reflect a distorted reality. I believe that image is a major reason for this phenomenon. In those two examples, the images associated with the brand names of *Volvo* and *Apple* contain salient notions of “safe” and “usable” respectively that lead consumers to accordingly biased inferences. It is not surprising that brand holders make use of this process and even issue advertisement campaigns to further cultivate the respective beliefs.

Such observations were at the beginning of my dissertation. Consumers do not always rate products accurately. They make decisions based on images – loose accumulations of fuzzy impressions, retrieved from the nebulae of human memory. Instead of sharply analyzing, rating and balancing the available facts in order to achieve a precise rating of the products’ attributes and to attain a perfectly accurate decision, consumers are satisfied by rough approximations. This surely is convenient, but at the cost of veridicality. I designate this as image effect.

The aim of my dissertation is to explore image effects in the domain of consumer psychology. I will commence by outlining and sharpening the concept of

image and its meaning and relevance for consumers as well as manufacturers. Subsequently, I will deduce the central research questions: How can image effects be detected? Can images lead consumers to different decisions? If yes – how can this be explained?

The level of my investigations is therefore not the same as in market research, where descriptive image analysis is established as a most commonly used tradition. Instead, I consider the consumers' perspective. My focus is on the consequences of images for the individual consumers' decision making process. In this regard, chapter 2 reports a first study that was conducted to elicit pure image effects at all, and to explore possible moderating conditions. It is accordingly titled "Image effects on consumer behavior". This is followed up in chapter 3, which reports the study "Image effects on consumer behavior: A closer look", where the prior findings are replicated using more elaborate measures and related to a theoretical framework of dual-process theories.

Before I will report chapters 2 and 3, I will first set up the cornerstones for hypothetico-deductive image research in chapter 1 by approaching the construct from a psychological rather than an economical perspective. I will stress that image effects are no faults of nature, but rather serve a function. Short annotations on the historical roots of the image construct will clarify its origin. This will lead to an up-to-date definition that accounts for all relevant aspects and makes image operationalizable for experimental consumer psychology. The importance of image will then be highlighted from the perspectives of the supplier and the consumer. I will underline that image may well take the functional role that is sometimes associated with it (e.g., Glogger, 1999) – but also, that image may just as well be a byproduct of human information processing.

Further, I will review antecessors of my studies in consumer psychology. I will also relate to stereotype research, from which I borrowed the experimental scenario of "same message, different sender". I will describe my adaptation of this scenario to consumer psychology and demonstrate its worth in finding distortive effects on consumers' judgments that are solely based on manipulated images. Finally, this research rationale will be embedded in a theoretical framework of social cognition and dual-process theories, from which hypotheses will be deduced that will allow for identifying, characterizing and explaining image effects.

1.1 Approaching the Concept of Image Effects

It is a commonplace that human beings do not always judge things accurately. Since many years, various branches of psychological research try to understand and explain this phenomenon. For instance, cognitive psychology has brought about amazing findings about judgmental heuristics, showing that not all cues which are available and would prove useful are effectively used in judgments (e.g., Gigerenzer & Todd, 1999; Tversky & Kahneman, 1974). A historical outline and actual overview on this is provided by Gilovich, Griffin and Kahneman (2002).

In social psychology, social cognition research has provided impressive evidence showing that humans categorize others often using schemata – simplified patterns of thought that often result in stereotypical thinking (for an overview, see Macrae & Bodenhausen, 2000). However, in consumer psychology, such considerations about inaccurate judgments are rare.

1.1.1 Image Effects in Consumer Psychology

It is most surprising that the phenomenon of inaccurate decision making has not quite obtained the amount of attention in consumer psychology that it seems to deserve. One could speculate about the reasons for this – maybe, the overcoming of the homo oeconomicus paradigm is still too recent in the history of science. Another reason could be that consumers' judgmental inaccuracies are not obvious and rarely detected, which is what I believe. However, I propose that the image effects that result from such inaccuracies have not yet been sufficiently investigated. In consumer psychology, little is known concerning the accuracy of product evaluations under the influences of images – although generally, the importance and ubiquity of images is widely accepted, for instance in the marketing of consumer goods (e.g., Ballantyne, Warren & Nobbs, 2006; Martenson, 2007), but also in close relevant domains like political marketing (e.g., Cwalina, Falkowski & Kaid, 2005; Yannas, 2002) or tourism promotion (e.g., Hankinson 2005; Hosany, Ekinci, Uysal, 2006). Hence, image is deemed as important, but its effects on consumers' decision making accuracy are barely known. These considerations constitute my dissertation.

1.1.2 Smart Errors: Why Image Effects Make Sense

We live in a world of permanent media exposure and are confronted with a never ending stream of advertising messages. Information is ubiquitous and we as individuals and consumers have to deal with a vast amount of persuasive messages. It is impossible to always process all this information accurately. This is where image comes into play – it helps processing lots of information in little time. In this respect, I consider image effects not as faults, committed by sloppy cognitive misers. Instead, image effects should per se be considered value-free and in paying tribute to the tradition of evolutionary social psychology. As such, image effects will be recognized as an outcome of an obviously successful survival strategy.

Accordingly, in our context, a product evaluation which is not accurate by one hundred per cent does not occur occasionally and just by chance, so to say as a freak of nature. Instead, it's a matter of compromise between cost and correctness. It facilitates the evaluation of things in our everyday lives with moderate effort, but succinct precision. We are thus enabled to conduct our daily consumption decisions fast and frugally (Gigerenzer & Todd, 1999). In this sense, we commit “smart errors”. It would take too much time and effort if at first we always tried to rate each and every product, organization or person according to objective criteria. Instead, we use a simple method and rely on cognitive rules of thumb.

Seen from the perspective of evolutionary theory, such a simple method of information processing is an implementation of an evolutionary stable strategy in the sense of John Maynard Smith's (1982) evolutionary game theory. This mostly works satisfactory. On the other side, I propose that exactly herein lies the reason for image effects – misjudgments of more or less severity, of which we hardly ever become aware. It is the aim of my dissertation to make those misjudgments that are caused by image accessible by an experimental manipulation, and to clarify whether image serves as a judgmental heuristic for consumers' product evaluations.

Despite this evolutionary background, I will not further relate to evolutionary theory because of epistemological reasons, as its answers are at the *ultimate* level of reasoning. In my work however, I am more interested in finding *proximate* reasons for image effects.

1.1.3 Where Image Effects Occur

The focus of my dissertation is on the appearance of image effects in the domain of consumer psychology. But just as stereotypes prevail in a variety of social situations, so do image effects occur in different persuasive contexts: not only at consuming goods, but also in times of elections, when the “products” of political parties are rated by voters (Keller, 2007), or when charitable donations are given to humanitarian, non-governmental organizations (Morf, 2006).

It seems most interesting that people do sometimes rely on image even in situations that really require high levels of cognitive involvement. This may have negligible consequences when an individual purchase decision in the supermarket is affected. But as soon as masses of buyers let themselves be guided by image, literally world-shaking effects may result. The crash of the dot-com bubble in March 2000 and its consequences for the global financial markets provides an instructive example. Economists explain this in terms of behavioral finance: The market values of numerous dot-com companies were highly overestimated by investors, who invested far more capital assets in this sector as would have been rational.

Subsequently, corrective estimations of these values resulted in a drastic, collective withdrawal of money from the market. This illustrates that even with high expertise, one is not immune against image effects. Despite the fact that most shareholders invested not only money, but also high levels of cognitive involvement and knowledge, many of them evaluated the values wrongly and overrated dot-com companies, according to the promising images that were associated with everything bearing a dot-com name. (Meaningfully titled reviews on this are provided by Ofek and Richardson, “Dotcom mania: the rise and fall of internet stock prices”, 2003 and by Howcroft, “After the goldrush: deconstructing the myths of the dot.com market”, 2001.)

1.1.4 A Popular Experiment Illustrates the Image Effect

A good example for early experimental evidence on image effects in a consumer behavioral context is the legendary “Pepsi-challenge”. This effective advertising campaign was conducted as a public blind taste test by lemonade supplier Pepsico in 1975. Passers-by were offered two unlabeled cups, each filled with an identically

looking cola drink. They were asked to rate the drinks and state their preference. One of the cups contained *Pepsi-Cola*, the other *Coca-Cola*. Most participants preferred *Pepsi-Cola* (Foley, 1995; McClure et al., 2004). This result contradicted prior verbal preference expressions of the majority of participants, who stated that *Coca-cola* would be their choice.

The Pepsi-challenge demonstrates how image effects can be elicited by a deliberate intervention. Obviously, preferences for sweet, carbonized soda drinks depend on the labels that stick to the bottle. This observation allows for a more general conclusion: Consumer goods are rated differently and therefore, yield different success on the market, depending on how they are labeled – even if inside the package, the products are identical. Obviously, these considerations imply that product preferences can sometimes depend more on image than on content.¹

The findings from the Pepsi-test were replicated in a better controlled setting by Nevid (1981), who found that the taste of *Perrier* was preferred to *Old Fashioned Seltzer* only in the condition where the brand labels were visible, but not when they were not visible. This is even more remarkable, because soda waters are more standardized than colas and therefore more difficult to identify. Nevertheless, brands with a salient image are preferred by a majority, as the sales figures of *Perrier* or *San Pellegrino* compared to lesser known brands suggest.

1.1.5 On the History of Image

Before defining the construct of image, I will approach it from its past, because a short historical review is illuminative. The insight that humans are not able to perceive and evaluate things in their environments objectively can be traced back to Plato's cave allegory (c. 370 B.C., as cited in Heidegger, 1997). Plato stressed that we as observers are unable to directly see the objects themselves. Instead, we only perceive their shadows, out of which we construct ideas or pictures of the objects in our minds.

¹ The objectivity of the Pepsi-challenge taste test was doubted by market competitor Coca-Cola. They argued that Pepsi was sometimes offered to participants in cups labeled "A" and Coca-Cola in cups labeled "B" or that Pepsi was always served first or better chilled. Although this critique was not substantially founded, it seems plausible. However, several exploratory snapshot experiments I conducted in classes on consumer psychology confirmed the basic finding that product ratings are significantly more difficult when labels are missing, and evaluations only partially match prior verbal expressions.

This statement for a long time remained without further consequences, until Immanuel Kant revived it again in the 18th century in his “Kritik der reinen Vernunft” (Kant, 1781, as cited in Prauss, 1974). He declared that the “thing in itself” could never be recognized objectively. Instead, the process of perception itself causes distortions, which determine the subjective recognition of things. In his doctrine of idealism, Kant emphasized the fundamental epistemological consequences that result from the mismatch of subjectivity and objectivity.

Two more centuries had passed until these consequences became important for the economical sciences. In the prospering global economy following the Second World War, products in more and more market segments began to closely resemble each other, such as that they could not be differentiated only regarding their actual features. In facing hard competition, manufacturers began to tie up their products with a field of subjectively relevant associations – images, in other words. This notion originates from the economist Kenneth E. Boulding (1956), who first introduced the concept of image into economic psychology and hereby advanced the shift of economical behavior from the level of facts to the level of subjective beliefs. (Trommsdorff & Becker, 2005). At that time, the economical era of image has begun, and it still continues.

1.1.6 Definition of Image and Image Effects

In short, I define *image* as the stereotypical sum of attitudes towards an object. I will now describe how I came to this definition and will anchor it on the ground of similar definitions of other authors. The term “image” has been conceptualized differently in the course of time (for overviews, see Drengner, 2003; Essig, De Russel, Semanakova, 2003). After all, these conceptualizations can basically all be consolidated to the central statement that humans do not see things as they really are, in the sense just discussed in the preceding section. But in effect, no widely accepted theory of image has yet been constructed. Possible reasons for this may be the similarity to the constructs of attitudes on the one side, and to cognitive schemata on the other. I will further elaborate on this in section 1.4, where I will suggest a theoretical framework for image research.

In remembering the history of science, one could also argue that at the time when Boulding (1956) introduced the concept of image into the economical disciplines, the paradigm of the homo oeconomicus was prevailing. As a consequence, image was then regarded as a residual factor, only able to “... explain those remaining aspects that could not be understood by observable facts” (Drengner, 2003, translated by the author). It could also be that image has not been considerably investigated from the consumers’ viewpoint because it lies in between economy and psychology and no one feels responsible for it: It’s an old scientific cliché that psychologists are busy considering mental illness and “social stuff”, while at the same time economists “often criticize psychological research ... for its failure to offer a coherent alternative to the rational-agent model” (Kahneman, 2003).

However, consumer psychologists nevertheless occasionally picked up the image topic and conducted exploratory studies in the field, some of which will be reported in the following. Meanwhile, an attitude-based working definition of image has been established. This definition understands image as the sum of attitudes towards an object (Glogger, 1999). It is visualized in Figure 1. Besides its plausibility, this definition of image offers the important advantage of being operationalizable, as image itself cannot be directly observed. Rather, it is a latent construct and can only be accessed by indirect means.

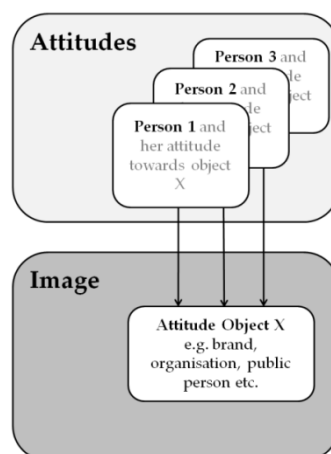


Figure 1: Attitude-based definition of image. The sum of attitudes of persons 1-*N* together reflect the image of the attitude object X. Note that attitudes are associated to persons, whereas image is associated to an image bearing object. The figure is deliberately labeled with “attitudes” in plural and “image” in singular cases.

I basically agree to the attitude-based definition and will make use of it as a practical way of assessing images. Yet, I would like to underline an important point which is not comprised in purely attitude-based definitions: Images are closely relevant not only to attitudes, but also to social schemata. In my opinion, this aspect deserves attention, because it allows for a more sensible understanding of the functions of image. For example, this aspect is considered by Trommsdorff and Becker (2005, p. 297, translated by the author):

The image of an object is a holistic, stable, schematically simplified, valuated and more or less unified notion of an object, being shared by a group, a market segment or a subculture. Images which are uniform within a social group are social schemata. They may become stereotypes if they get consolidated. ... In modern image research, images are conceived as views one may have of complex objects which may barely be described in all of the relevant attributes.

Consequently, by joining the aspects of image as stereotypical, summing up, attitude-based and directed towards a single object, I define image as follows:

Image is the stereotypical sum of individual attitudes towards a single object.

I accordingly designate the term *image effects* as to describe the effects that images have on individuals. Product quality ratings provide illustrative examples for such image effects, especially when they are influenced by the distorted reality that is conveyed by image. Product ratings will also be the main concern in the studies reported in chapters 2 and 3.

I want to stress that not only quality ratings get distorted by image. For example, when looking at luxury products, the price level that is expected by consumers is influenced by the images of the respective brands. Neither is a quality rating involved here, nor is it important to consumers, because in fact, the actual quality of luxury products is not superior compared to commodities.

1.1.7 Specifications to the Concept of Image

To render the concept of image more precisely, I would like to highlight some important specifications in the context of image. They follow logically from the definition of image as presented in the prior section, but are occasionally neglected or even contradicted in some of the pertinent literature on consumer psychology. Above all, people do all have their individual attitudes towards a certain object – but the object itself by definition has only one single image, as Figure 1 illustrates. Whether the image that an object sends out is liked or disliked depends on the recipients' ratings. Moreover, their attitudes accumulate further variance due to individual differences at the processes of retrieving and perceiving information.

An example illustrates the implications of these arguments. A car manufacturer, for instance, may have a brand image of being highly aggressive. In fact, their cars being aggressive is of high importance to some customers and this attribute therefore is brought forward in many advertising campaigns: “Cadillac advertising regularly focuses on the Escalade’s aggressive profile” (Gunster, 2004). This image may be liked by a car buyer who likes to drive fast, but disliked by one to whom an ecological lifestyle is important. What’s more, different evaluations of a car brand vary according to the information sources used: for instance, whether one reads magazines about cars or environmentalism.

Another specification needs to be made: When I speak of image effects, I do not imply that image necessarily decreases the veridicality of consumers' judgments. In fact, if something is to be judged, image may effectively be helpful in attaining veridicality. With this proposition, I pay tribute to the findings on heuristic decision making, where it has been shown that “judgments under uncertainty” (Tversky & Kahneman, 1974) may be sufficient. Moreover, they may even surpass judgments that have no resource constraints, as has been shown amongst others by Borges, Goldstein, Ortmann and Gigerenzer (1999), where judgments using the “take the best” heuristic outperformed expert analysts on the stock market. I will come back to this in section 1.4.4, where I discuss the idea of image as a heuristic tool. The conception of image as a judgmental heuristic is at an early state, but it deserves consideration, as it derives logically from the definition of image as schematically simplified representation.

1.1.8 Summary

I consider image effects in consumer behavior as inaccurate ratings of products, distorted by the associated brand images. The underlying assumption of humans not being able to evaluate things veridically is based on a long history in philosophy. Although image effects exhibit themselves as biased decisions and faulty judgments, they appear reasonable, because image is obviously an evolutionary stable strategy that eventually serves a heuristic purpose.

Regarding consumer psychology, image has mostly been considered in market research studies and using descriptive methods only, in an attempt to characterize brands and to optimize their market positions. Considerably less effort has been made to understand the influences of images on consumers. This is where my dissertation aims at.

I defined the concept of image effects close to stereotypical thinking. Although this dissertation focuses on consumer psychology, it is obvious that image effects occur not only at consuming goods, but also at elections, donations, in fundraising and in other contexts. Image itself is defined as stereotypical sum of attitudes of individuals towards a singular object. This renders it operationalizable and opens an empirical approach for conducting experimental image research.

1.2 The Importance of Image

The importance of image can be understood from two different perspectives: the manufacturers' and the consumers' (Drengner, 2003; Glogger, 1999; Trommsdorff & Becker, 2005). Both will now be shortly outlined and compared. I will then add to the usual opinions about the importance of image by taking into account evolutionary epistemology (Vollmer, 1975), which implies that image does not necessarily provide a useful function, but may also be regarded as a byproduct.

1.2.1 The Importance of Image for Manufacturers

Manufacturers primarily make use of images to position their brands in the market and to distinguish themselves from competitors (Aaker, 2004; Argenti & Druckenmiller, 2004). Depending on the actual situation of a company, either build-up, modification or stabilization of image is prioritized. Image research conducted for this purpose remains on the descriptive level. Often, sets of descriptive attributes are assessed, following the brand personality scale proposed by Aaker (1997) or using variations of it. The resulting profiles can then be compared to each other.

Although more recently, descriptive image research begins to make use of data scaling and dimension reduction procedures like multidimensional scaling and factor analysis, which both allow to generate attractive, three-dimensional data visualizations, the scope is still on modeling the market and on positioning brands in these models. Such is normally of little use for understanding consumer behavior. Nevertheless, it is beneficial to compare descriptive image profiles to product rating scales, as I will show in the results sections of chapters 2 and 3. Thus, the convergent validity of image profiles and product ratings may be considered.

1.2.2 The Importance of Image for Consumers

On the opposite side, there is the consumers' perspective, which focuses more on the psychological effects, processes and functions of image. Glogger (1999) distinguishes four virtues of image: compensation, coping, confirmation and expression.

The function of image as compensatory reality serves to fill gaps in the knowledge about an object. A consumer may thus acquire and maintain a subjectively coherent holistic impression of a product or a manufacturer. Closely related to this is the coping function of image, which filters the stream of incoming information and offers a decision-making aid.

Further, image is acclaimed to function as a mechanism for self-confirmation, by choosing brands that are congruent to one's self. An example for this is provided by Heath and Scott (1998). They demonstrated that car owners evaluate their own self-concepts as more similar to those of owners of car brands with a similar rather than a dissimilar image. Self-image congruence is one of a few topics in image research that have received considerable attention from consumer psychologists, mainly from Sirgy and colleagues (e.g., Sirgy, 1983, 1985, 1986; Sirgy & Danes, 1982). Analogously, but directed outwards is the function of image as a way of expressing personal values. This serves to convey one's self-concept to the outside world. Closely related to this is the function of conformation, which originates from the need to be included in a social group.

1.2.3 Image: Benefit or Byproduct?

Glogger (1999) delineates the functions of image from a consumers' perspective. This implies that image effects, as imprecise judgments, are merely consequences of actually beneficiary processes. Although I generally agree to this, I would like to add an important consideration: Image effects could just as well be useless byproducts of human information processing. It is possible that they only occur because they are of no significant disadvantage. As my objective is to investigate image effects, this notion needs to be considered. One should be aware that image effects might not a priori be useful.

With this notion, I pay tribute to evolutionary epistemology (Vollmer, 1975), from which it follows that all species are capable of evaluating the objects in their environments with succinct adequacy. Translated to the current context, this implies that if a consumer rates a product inaccurately, then it is not necessarily due to a basically helpful, heuristic process. Instead, if inaccuracies do not hinder the "species" of

consumers too much, those inaccuracies may just have persevered, and not at all be caused by anything useful. As I will show in the following chapters, I found evidence for this possibility, because image effects were found to prevail even under conditions when all necessary resources for an undistorted judgment were available.

1.2.4 Summary

Image may be looked at from the viewpoints of suppliers or consumers. While for the suppliers' interests, high-end descriptive measures are available, these are only marginally useful for understanding the psychology of image. For the consumer, image is traditionally considered as providing four main functions: as a coping mechanism for when information is lacking, for self-affirmation and self-expression and for adaptation to the social environment. While this implies image as being advantageous, it might as well be that image may also just exist as a byproduct of cognitive evolution that survived only because image effects did not severely hinder other decisional strategies.

1.3 Antecessors of my Studies

Studies on the psychology of image are rare, compared to the amount of image surveys conducted for market research. I will subsequently outline some of the most influential antecessors that have laid the ground for image research from a consumers' perspective. The following sections will show how important image is for the individual consumer. Also, I will point at aspects particularly relevant for my own studies, shortcomings to circumvent, and achievements to take advantage of. At the end of this outline, it will be evident that image research has open gaps which need to be filled up.

1.3.1 Taste Tests: Basic Evidence for Image Effects

I propose that brand image is used as a cue to infer product quality. If this cue is not available, product ratings should therefore differ compared to when the cue is available. Early experimental evidence supporting this idea has been provided by Bowles and Pronko (1948). They asked 156 participants to drink three different cola beverages from unlabeled glasses and to correctly assign them to the respective cola brand. One half of the participants were offered a choice of three different cola beverages: *Coca-Cola*, *Pepsi-Cola* or *RC Cola*. The other half received three glasses that actually contained the same beverage. Participants in the different beverages condition were unable to correctly assign the beverages to the respective brand. Furthermore, in the same beverage condition, the drinks were assigned to the three brands in a similar distribution pattern as in the different beverage condition, loosely following the respective advertising pressure of the three brands. This highlights the role of brand image information for the product quality rating of consumers. Similar studies have been conducted for different product domains, supporting Bowles and Pronko's findings.

Allison and Uhl's (1964) seminal experiment took this one step further. They offered not only similar, anonymized products, but left some of the labels attached to the stimuli. In my view, this is the first study that directly addressed the influences of brand images that are actually visible on a product on consumers' product ratings. They too set up a taste test. The experimental design involved the exchange or removal of the

beer bottles' labels and product quality ratings. First, all participants had to give preference rankings for all the beer brands in question. Then, some of the labels were exchanged amongst the bottles, some were completely removed, and some were left original, so that any possible combination of beers and labels was presented to all participants.

The study was conducted during several weeks, so that every participant had a chance to rate every possible combination of beer and label – without getting drunk, which would have been unethical and might have augmented the quality ratings of the beers tasted last, as I suppose. The research was funded by a beer brewing company, what probably helped the researchers to conduct this time-consuming research design. They found that the beers were rated depending on the brand they were labeled with, in accordance to the prior preference ratings – no matter whether the beer that was actually contained in the bottle was the one indicated by the label. Also, when bottles were labeled, no matter with what label, they yielded higher overall ratings than the unlabelled bottles. In other words, even the worst rated labeled beer received better ratings than the highest rated unlabeled beer. One conclusion is that correct preference ratings are rarely obtained when labels are removed. But what's even more important, this effect persists when there are labels present on the products that are to be rated – no matter whether the labels have been exchanged or not.

1.3.2 More Recent and Further Reaching Studies Using Taste Tests

The taste test paradigm has since continued to provide evidence for image effects on consumer behavior. More recently, Wansink, Park, Sonka and Morganosky (2000) have followed this tradition in adopting the research question in accordance to a problem of modern times: unhealthy nutritional behavior. Their participants were offered nutrition bars either with or without health claims in the product description and either with or without labels stating that soy was contained. The results indicated strong preferences for food without soy and without health claims. The major improvement over the early studies is that in all conditions, the exact same product was offered, except for the labels. It was always a nutrition bar that did not contain soy – but when it

was labeled as to contain soy, it received inferior ratings. The same accounts for the general health claims.

Image is believed to influence product ratings of consumers at all ages – even young children. A recent study by Robinson, Borzekowski, Matheson and Kraemer (2007) provides initial evidence for this. They supplied 36 children with a mean age of 4.6 with fast food wrapped in either *McDonald's* or a no-name packaging. Of course, the food was actually all from the same McDonald's restaurant around the corner. The results are in line with the previously reported findings: Children liked food wrapped in McDonald's packaging much better than no-name food. This held true even for carrots, a product that cannot be ordered at a usual fast food restaurant.

The study of Robinson et al. has a design flaw, because it is not the same to compare a well known brand name like McDonald's to a no-name condition as to compare it to another well known brand name. Therefore, we currently conduct a replication study to check whether these results are applicable in Europe too and in which we address the lack of a second brand name condition (Deiters & Schildknecht, in prep.). Nevertheless, if the results of Robinson et al. prove true, they would enrich the previously discussed findings with an interesting nuance: One might say that even young children use brand images to infer product quality.

1.3.3 Possible Neuropsychological Correlates of Image

Taste obviously proves to be a popular measure for quality ratings in consumer psychology. Yet, none of the studies reported have discussed the stage on which the preference decision might occur. From the literature review and from anecdotal evidence, I conclude that most believe that the food offered actually tasted the same to participants and that image only modified preference ratings at a later stage of processing, for example, when a conscious preference decision had to be expressed. This means that image would only influence the preference decision by means of cognitive valuation processes, whether consciously or not.

However, what if in all of these studies, the foods with different labels actually *tasted* differently, even in the conditions where the exact same food was offered? This might be concluded from what McClure, Li, Tomlin, Cypert, Montague and Montague

(2004) found by using a functional brain imaging device. Participants were asked to state whether they preferred *Coca-Cola* or *Pepsi*. They were then offered these drinks inside an fMRI scanner, in an anonymous and a branded condition. In the branded condition, the beverages administered through a pipette where covertly branded correctly or falsely. The neural response patterns for the anonymous task corresponded to the verbal preference expression, which is no surprise. But in the branded condition, no matter what drink had actually been given, the brain activations showed patterns that correlated with the verbal preference expression for the respective brand. This means that the same stimulus appeared to participants to have tasted differently, depending on the brand image it was accompanied with. This is, of course, the ultimate implicit product rating measure. I plan to replicate my own findings with it and to seek for convergent validity of the two.

The popularity of the taste test as experimental paradigm has two reasons, in my opinion. First, the manipulation of brand image is easy. One only needs to exchange the images mediated through the labels. What's more, even in experiments in which not only the labels, but also the actual food was exchanged, consumers indicated their taste preference in accordance to the label, not to the sensory consumption sensation. A second reason for the ubiquity of taste tests might be that food is a highly competitive market where the importance of images on product ratings decides over the rise and fall of a products' success. It is no surprise that some of the studies reported so far were funded by large food companies.

1.3.4 A Variant of Image Effects: Price Image

Obviously, if image has such eminent effects on consumers' product ratings as shown by numerous taste test studies, one would expect that image effects would also show up in other product domains and if other image cues than brand labels were manipulated. This is a logical conclusion from the notion that images are multi-dimensional and conveying various attributes. Despite the fact that a majority of relevant research has considered food, used taste tests and manipulated brand image, there are indeed a number of studies which have addressed other evaluative attributes.

For example, prices contain evaluative information. If a product carries a price label which ends by the numbers 99 rather than 00, it is regarded as discounted (Quigley & Notarantonio, 1992). Schindler and Kibarian (2001) found the same effect even if not real products, but instead only advertisements were presented. Contrary to what consumers believe, products labeled with 99 endings have been found to be actually more expensive overall than such with a 00 ending (Schindler, 2001, 2006). These results nicely illustrate the image effect which can be elicited through a price label.

A number of studies have found that a high price is taken as a signal for high quality. This is sometimes referred to as “price-image effect” (for an overview, see Völckner & Hofmann, 2007). Obviously, consumers expect high priced products to be more thoroughly manufactured than low priced products – which is a reasonable expectation, of course. This shows that image – in this case price image – may indeed serve as a decision heuristic: Instead of personally checking whether the manufacturer has really spent more time and effort and if he has really used more precious materials, which would be time consuming, the consumer chooses the price image as heuristic short cut. This phenomenon is ubiquitously applied in companies’ marketing efforts. Nowadays, price is more a matter of a marketing decision, and less one of manufacturing effort (Kotler, 2007). Meanwhile, many consumers know this, which might be the reason why the price-image-relationship has decreased during the last decade (Völckner & Hofmann, 2007). But consumers’ product evaluations still depend on price image cues, as Plassmann, O’Doherty, Shiv and Rangel (2008) report. Participants rated the quality of wines which they believed were differently priced. Plassmann et al., also using an fMRI scanner, found that price information altered the neural correlates of the experienced product preferences. Participants were unable to correctly differentiate the wines and expressed higher ratings for wines they believed to be more expensive.

Another remarkable experiment has been conducted by Shiv, Carmon and Ariely (2005). Similar to the findings that taste tests may actually modify neural correlates and not only the expression of a quality rating, price image has been used to evoke placebo effects in marketing. They set up an experiment in which participants were asked to solve puzzles after they had consumed an energy drink. The drinks were either described as “discount priced” or “regular priced”. Of course, both drinks contained the

exact same product. As we would expect by now, the researchers found that participants in the low price condition solved significantly less puzzles. These findings are relevant both to consumer psychology as well as medical science. The saying that “good cures hurt, bleed and cost” is now supported by experimental evidence, at least regarding cost.

1.3.5 Country-of-Origin: Relating Image Effects and Stereotype Research

Another image attribute which has received considerable attention is the manufacturing country. For example, a majority of consumers favor German cars over French cars, but prefer French wine over German wine. Verlegh and Steenkamp (1999) provide a comprehensive overview and meta-analysis on this *country-of-origin effect*. These studies share their aims and designs with the price image studies just reported. They mostly identified differences in product evaluations for several combinations of countries and product categories and therefore need not be further discussed. But I would like to point out one specific study on country-of-origin by Maheswaran (1994) and relate my work to his, because he deliberately conceived country-of-origin effects as stereotypical product evaluations. I follow this conception regarding the construct of image effects. Of course, there are differences between images and stereotypes – for instance, stereotypes are mostly negative, while images may as well be positive. Also, stereotypes concern only a small number of attributes, while image is a multi-attribute construct. Nevertheless, I suspect the cognitive processes that generate stereotypes will be the same as for image effects.

Looking at findings from stereotype research, Maheswaran (1994) derived research questions about the onset of country-of-origin effects. He hypothesized that experts would be less influenced by country-of-origin information than novices. In fact, this was only partially true: In all conditions, experts’ ratings were also significantly affected by the country cue. Only when the other cues offered were of high argument strength, experts relied less on the country-of-origin. This is no longer a singular finding, but has been successfully replicated (e.g., Ahmed, Johnson, Yang, Fatt, Teng & Boon, 2004). Maheswaran’s findings already point at the main rationale that I follow in my second paper: Image affects not only product ratings of novices, but also those of experts.

1.3.6 *Different Designs and Different Domains*

The studies reported so far have all used experimental manipulations and are located in the consumer psychology domain. To round this off, I would like to point at two of my own earlier studies. First, a different design for investigating image effects is addressed and second, a domain outside of consumer psychology.

For one, image effects may not only be demonstrated in experimental settings, but also using correlational data from surveys and existing databases. In a small study on car safety (Fichter, 2007), I used a publicly accessible database of objective car crash test results and compared it to consumers' perceived car safety ratings. 50 participants were asked to rate car brands for perceived safety and general image. Although the correlation between subjective and objective car safety was high, ($r_s = .60, p \leq .01$), the correlation between general image and subjective car safety was close to 1 ($r_s = .94, p \leq .01$). This means that participants held beliefs about car safety that were congruent to the general image. Although from this study, no causality can be deduced, it seems obvious that image was the reason for the consistent rating inaccuracies.

Second, image effects do also occur outside the consumption context. To establish this assumption, we conducted an experiment in the domain of political decision making (Keller, 2007). The design was essentially the same as will be detailed in chapters 2 and 3. The results of our study are congruent with Maheswaran's (1994) findings on the country-of-origin effect, but we manipulated political parties rather than countries. Our participants were strongly influenced by the respective party's image when they were asked to characterize a fictitious political approach. To our surprise, even after a thorough literature review, we could not find any relevant studies that have applied this experimental design in the domain of political marketing before.

We also found this effect for participants with high knowledge and involvement, which further supports Maheswaran's (1994) findings. We were satisfied to find that the characterizations were also independent from the participants' own political attitudes, which is in line with the specification of image as a single, socially shared concept about an attitude object.

1.3.7 Summary

Taste test studies provided early evidence for the effects that images have on consumers' product ratings. If food is labeled with a favorable brand, it gets better ratings. More recent research suggests that image may in fact alter neural correlates of taste perception, not only preference ratings. Some of these findings underline the importance of image not only for company stakeholders, but also for societal benefit, for example at interventions against unhealthy nutritional behavior – even more so, as image affects young children, too.

Food has been the preferred domain of investigation, but image effects have also been shown for price cues or country-of-origin information. Maheswaran (1994) was the first to highlight the close relationship of images and stereotypes. He linked the two concepts and hypothesized that country-of-origin-effects would be decreased by expertise. As this was not the case and later studies found ambiguous results too, this lays ground for one of the major questions of chapter 3: Do image effects occur independently of knowledge?

I reported two of my own studies which are not discussed in detail in this dissertation, but highlight two important aspects: In a study on perceived car safety, I showed how the occurrence of image effects can be revealed using a correlational design. Finally, in an experiment on political image, we exemplified that image effects also occur in other than consumption contexts.

1.4 Establishing a Framework for Image Research

1.4.1 *Relating Image to Theory*

What is affected by image? How is it constituted? How can its effects be measured? What are the underlying processes of image effects? What are the factors that moderate the genesis of image? Many image-related questions remain unanswered, because, other than for food and a few other topics, image has not been considerably investigated. Except, of course, in the domain of marketing, where the objective is completely different: to put brands at their most rewarding market position. If we seek to answer the above questions, it is a prerequisite to establish an empirical research framework for consumer psychological image research.

Although consumer psychologists have agreed to a definition of image, there is no general theory of image, even though some attempts to form such a theory have been undertaken. For example, Karvonen (1997) theorized about image from the viewpoint of comparative linguistics, "... based on relational ontology or contextualism. From this point of view, image management is an epistemological sense management of perspectives. Understanding it seems to be perspectivistic and one-sided." In the political sciences, authors occasionally refer to an "image theory" as proposed by Cottam (1977), who says that stereotypical intergroup perceptions could stem from features of the social structural relationships between groups. Cottam's proposition is more of a tool for modeling international relations and is not fruitfully applicable to a consumer psychological context. More recently, economists tried to form a "business-imageology", as they call it (Essig, De Russel & Semanakova, 2003). These are all honorable attempts, but in my opinion, by no means do they offer theoretical frameworks which would allow deriving hypotheses about image effects on consumer behavior that could be empirically tested.

Alternatively, it would have been possible to take the grounded theory approach, developing an image theory "on-the-go" from a corpus of data (Glaser & Strauss, 1967). In market research, where images are of great concern, this is widely accepted and common practice – but conflicting Popper's (1934) premise of falsifiability.

Instead, I prefer to relate image research to close relevant domains which I believe will be succinct for explaining image effects: social cognition and dual-process theories of information processing. They provide a solid, empirically well tested theoretical foundation, where most of the questions raised above have already been investigated. This view is supported by Trommsdorff and Becker (2005), who state that “image research could draw from stereotype research ...”. In the following subsections, I outline the research framework which I believe will help bridging the theoretical gap in image research. This will also help finding a suitable experimental setting and choosing the right variables.

1.4.2 Image Effects as Stereotypes About Products: A Social Cognitive View

I follow Maheswaran (1994) and link image effects and stereotypes. Images may thus be seen as cognitive schemata. If they get activated, image effects occur. This concept offers two advantages: For one, I can embed the rationale of image research close to theories of social cognition. Sensible assumptions may thus be deduced. The most important is that if images are stereotypes about products, then products will be rated according to their images, which are schematically simplified representations of the manufacturers. This lays the ground for a relevant hypothesis about consumer decision making: To a certain amount, product ratings are based on image, not facts.

Finding a Suitable Experimental Setting. The second advantage of setting image effects in analogy to stereotypes is that this allows for choosing a proven experimental setting. If consumers indeed see products stereotypically, I could make use of the established social cognition research paradigm of “same content, different sender”. By adopting this to the context of product ratings, it becomes possible to set up experiments in which only the image is altered, while the rest of the product remains identical across the various image conditions. If different product ratings were then to be obtained, they could possibly only be caused by the experimental manipulation of image. As such, the effect of image alone would have been isolated.

The scenario of “same content, different sender” has proven its effectiveness several times in stereotype research. For instance, Bertrand and Mullainathan (2003) sent out résumés of job applicants with either white sounding names (like “Greg” or

“Emily”) or foreign sounding names (like “Lakisha” or “Jamal”). They only manipulated the applicants’ names and left the rest of the résumés unchanged. Foreign sounding names were believed to trigger schematic processing of the résumés by the employers, by which negative stereotypes about foreign workers would become effective. The results confirm this hypothesis, because fewer applicants carrying foreign sounding names were invited for a job interview. More recently, Carpusor and Loges (2006) replicated these findings about ethnic stereotypes in a similar fashion: They sent out e-mails with rental inquiries to landlords – again, with names that are mostly associated either with white Americans or with foreigners. More landlords answered to e-mails with white Americans’ names.

Following these examples, it’s easy to draw the line from social cognition and stereotypical behavior to consumer psychology and image effects: The résumés could just as well be replaced by uniform product descriptions that carry different manufacturers’ names. If such product descriptions were then rated differently, this would mean that the brand images that are associated with the manufacturers’ names had determined the consumers’ judgments. Therefore, I propose that the theories on stereotypical social cognition are best suited to deduct hypotheses for consumer decision making under the influence of image.

What further enhances my trust in setting images in analogy to stereotypes is that they are seen by many as functional devices that simplify information processing and response generation (e.g., Allport, 1954; Andersen, Klatzky & Murray, 1990; Bodenhausen & Lichtenstein, 1987). Stereotypes may therefore be regarded as energy-saving heuristics of an adaptive toolbox. This corresponds to Glogger (1999), who underlines the functional aspects of image for the consumer, as I have reported in section 1.2.2.

The energy-saving function of stereotypes has been experimentally supported in several studies. For example, Macrae, Milnae and Bodenhausen (1994) asked participants to form impressions of persons whose portraits appeared on a computer screen, together with some trait descriptions. At the same time, a prose passage containing some factual statements woven into a story was played back from a tape recorder. Half of the sample received stereotypical labels aside the trait descriptions. In

this condition, participants' scores in the prose-monitoring task were significantly enhanced.

I assume that findings analogous to those of Macrae et al. (1994) would result if the same scenario were applied to a consumer psychological setting. If the portraits were replaced by product pictures, the trait descriptions were replaced by product descriptions and the stereotypical labels were replaced by image cues like manufacturers' brand names, I would suspect participants would score higher if image cues were presented to them.

So far, by highlighting the parallels between images and stereotypes, I have described one plausible conception of what images might be and how they can be experimentally elicited. The applicability of this conception to a manipulation in a consumer decision setting will be addressed as the main question in chapter 1: "Image effects on consumer behavior". Logically, the following questions are: How do images become effective? What are the processes involved in the onset of image effects? I will address this in the next paragraph.

1.4.3 Image Effects and Dual-Process Theories of Information Processing

In social cognition, the onset of stereotypical processing is often explained by the level of automaticity and control in the processing of incoming information (e.g., Devine 1989; Fazio, 1990; Kahneman & Frederick, 2002; Macrae & Bodenhausen, 2000). High automaticity is associated with schema activation, leading to stereotypical categorization of subjects. This process is automatic, largely unintentional, requires little or no effort and does not significantly decrease cognitive resources. On the contrary, controlled processing of information requires cognitive resources, occurs intentionally and consciously and uses up resources. Traditionally, the latter has been described as being less suspect to stereotypical, misleading categorizations.² More recently, the termini *automaticity* and *control* are sometimes being replaced by

² Interestingly, research about stereotype suppression revealed situations in which "ironic monitoring processes" (Wegner, 1994) occurred: Becoming aware of stereotypes, followed by an attempt to suppress them, actually primes the related schemata and these get more easily activated subsequently. I suppose that some of my findings reported later on may be explained by such processes. I will come back to this in the general discussion.

associative and *rule-based*, which describes the assumed cognitive processes more adequately (Krieglmeyer, Stork & Strack, 2006).

The explanation that different levels of automaticity and control determine social cognitive information processing is usually associated with dual-process theories of persuasion (e.g., Devine & Monteith, 1999; Fiske, Lin & Neuberg, 1999; Pendry, 2007). Essentially, both share the same basic idea of two kinds of information processing: a peripheral or heuristic one, which uses little resources and makes use of schemata, but may also lead to rather inaccurate results; and a central or systematic one, which does not rely on schemata, needs more resources, and mostly delivers more accurate results.

At the same time, authors from domains like neuropsychology or behavioral economics port the same distinction to a more general level and refer to a “system of intuition” and a “system of reasoning” (Kahneman, 2003), of which Stanovich and West (2001) speak as “system 1” and “system 2” in an attempt to use more neutral labels. Kahneman (2003), at the very boundary of psychology and economy, found “substantial agreement on the characteristics that distinguish the two types of cognitive processes”. These continue to receive widespread attention not only in social psychology (e.g., Chaiken & Trope, 1999), but also in behavioral economics (Kahneman, 2003).

Cognitive neuroscience meanwhile found a counterpart for dual-process theories on a neural level (Macrae & Bodenhausen, 2000). Accordingly, flexible information processing makes use of two functionally and anatomically distinct brain systems: the slower learning, neocortical system containing semantic memory and the faster learning hippocampal system, comprising episodic memory (McClelland, McNaughton, O'Reilly, 1995). The neocortical system is thought to represent the “system of reasoning” or the central route to persuasion, while the hippocampal system serves the “system of intuition” and peripheral processing. For now, it remains unclear as to what extent this distinction can be made, as the two neural systems are more recently being regarded as acting complementary (Norman & O'Reilly, 2003).

However, there is “a diverse set of proposals for dual processing in higher cognition within largely disconnected literatures in cognitive and social psychology”, as Evans (2008) states. He concludes that “all these theories have in common the distinction between cognitive processes that are fast, automatic, and unconscious and those that are slow, deliberative, and conscious” and he also notices that “a number of

authors have recently suggested that there may be two architecturally (and evolutionarily) distinct cognitive systems underlying these dual-process accounts.”

Choosing the Right Variables. The two most influential dual-process theories are the elaboration likelihood model (ELM; Petty & Cacioppo, 1986) and the heuristic systematic model (HSM; Chaiken, Liberman & Eagly, 1989). Several other more or less overlapping dual-process theories have since been proposed: the continuum model of impression formation by Fiske and Neuberg (1990), the model of reflective and impulsive determinants by Strack, Werth and Deutsch (2006), the MODE-model (Fazio, 1990), or the model of dual attitudes as suggested by Wilson, Lindsay and Schooler (2000). Smith and DeCoster (2000) provide an overview of differences and similarities between the different dual-process theories.

While they are able to explain a wealth of more or less differing findings on persuasion and information processing at partially very detailed levels, making all too fine-grained hypotheses about dual-processes in image research is beyond the scope of the present dissertation project. Rather, I decided to focus on the essential proposition of dual-process theories: that there are two different ways of how information can be processed and that the outcome varies accordingly. My motivation is to find out whether these propositions hold true for the processing of image-related information. To my knowledge, the interactions of processing modes and images have not been investigated before, and I will address this as a major topic in the second paper “Image effects: a closer look at processes involved”.

To achieve this, it is necessary to define the relevant dimensions and variables representing the dual processes. This can be done by looking at the core assumption of the ELM: The probability that the receiver of a persuasive message processes it with high elaboration depends on her motivation and her ability to do so. Motivation is deemed necessary because high elaboration requires the investment of time and effort. Second, the receiver needs to have the ability to process elaborately, comprising both knowledge and time. So, motivation and ability are the relevant dimensions. How can they be measured?

In the large body of consumer behavior literature in which dual-process models are considered (for an overview, see Loken, 2006), motivation is usually operationalized as involvement, and ability is mostly operationalized as knowledge, whereas time or the

combination of time and knowledge are measured less often in recent studies, possibly because it is harder to manipulate time as a resource in settings outside the laboratory, for example in online experiments that are so popular now. Future advancements in online survey software will hopefully alleviate this problem. Therefore, I regard involvement and knowledge as being the most promising variables in respect to explanatory power. I decided to use them as measures for elaboration, also because valid measures exist for both of them.

1.4.4 Image as Judgmental Heuristic

Following the previous line of argumentation, it is evident that image might well be seen as a judgmental heuristic. These receive widespread attention since Tversky and Kahneman's (1974) seminal works on judgement under uncertainty. Accordingly, such judgments follow simple rules of thumb instead of complex and time consuming algorithms that weight and add all relevant cues. The latter is often referred to as WADD in the decision making literature and considered as gold standard for preference choice (Payne, Bettman & Johnson, 1993), which is of high importance for consumer decision making. To provide a recent example: Consumers who have to choose from various food offerings apply heuristics (Scheibehenne, Miesler & Todd, 2007).

Judgmental heuristics are thus seen to provide efficient means for the processing of complex information under conditions of limited resources. For example, the availability heuristic (Tversky & Kahneman, 1973) proposes that humans base judgments under such conditions on the perceived ease of retrieval when accessing the supposedly relevant information in memory. Researchers continue to suggest new types and variants of heuristics. For instance, Yeung and Soman (2007) found experimental evidence that perceived duration of services influences consumers' quality ratings. They called this the "duration heuristic".

As I have already pointed out, I agree with Glogger (1999), who sees image as serving the functions of bridging gaps in the mental construction of reality and as a coping mechanism for information overload. I would like to advance this and conceive image as a judgmental heuristic. I propose that such an "image heuristic" provides a holistic, simplified and shared representation of an object, which might serve

individuals to judge that object or similar objects when resources are rare and an easily accessible image is available.

My own studies are inspired by such considerations, although I did not directly manipulate resource availability. I hope the notion of image serving as heuristic will inspire future studies that address the relation of image and judgmental heuristics more directly.

1.4.5 Summary

In the preceding sections, I sketched a possible theoretical framework for general image research. No general image theory exists to date, although some attempts have been made in other disciplines. But using Occam's razor, I consider that image may not need its own theory, because stereotype research in social cognition and the research on dual-process theories offer succinct theoretical foundations.

Given the proposed analogy of image and stereotypes, image effects are most likely to occur under the same conditions as stereotypical thinking. Such a condition could be prevalent when energy needs to be saved, like in the prose monitoring task in the experiment of Macrae et al. (1994) reported above. One possibility of saving energy is automatic, peripheral processing of information. In person perception, automatic processing means assigning a person to a category using a social schema. Accordingly, in image research, automatic processing could mean rating a product using the image associated with it.

From the research on stereotypes, I can adopt the proven experimental scenario of "same message, different sender", which promises to be ideal for eliciting image effects in consumer behavior. I propose that conceiving images as stereotypes about products appears rational in the line of argumentation that I have drawn from the social cognitive viewpoint. After embedding image into stereotype research, it is a logical step to take dual-process theories into account. Just as they can be used to explain schema activation in social cognition, they might prove useful to explain image activation in consumer judgments. Finally, I related my rationale to judgmental heuristics, because I believe the functional aspects of image may be conceived as such and my studies might contribute to this discussion.

1.5 Finding and Explaining Image Effects: The Aims of My Dissertation

Image is crucial in today's economy. It has received widespread attention from market researchers, who continue to provide countless descriptive image reports. But these are useful only from a suppliers view. Instead, my dissertation is consumer centered. I focus on the importance of images from the viewpoint of individuals: What are images to them? How are they affected by images? Why do image effects occur, and how?

Some antecessors of my studies have highlighted the importance of image for consumers. Taste tests as well as experiments on the country-of-origin effect and self-image congruence have provided some early evidence on the effects that can be explained by image. I would like to contribute to this and advance image research in the domain of consumer psychology. I strive to achieve this by the following steps:

1.	Provide accurate definitions for the concepts of image and image effects that can be empirically assessed
2.	Draw a theoretical framework for image research from the consumers' viewpoint and choose a suitable scenario
3.	Find experimental evidence for the existence of image effects and hereby use definitions and theory from steps one and two
4.	Relate image effects to the key variables from the theoretical framework: involvement and knowledge

Step one has been conducted in section 1.1.6, "Definition of image and image effects". I have defined "image" as the shared stereotypical sum of attitudes towards an object, and "image effects" as judgment errors that occur when an individual uses image, for example when rating the quality of a product.

Step two has been conducted in section 1.4, "Establishing a framework for image research". I embedded image research into social cognitive grounds, from which image effects can be related to stereotypes. I proposed that images are cognitive schemata. Then I considered the findings from the research on dual-process theories, because they can explain many conditions where stereotypical judgments occur. Accordingly, I suggested involvement and knowledge as the most promising variables to which images may relate to.

Step three will be the main concern in chapter 2, "Image effects: Consumers' stereotypical product ratings". Step four will also receive some attention there.

Step four will be the main concern in chapter 3, "Image Effects: A closer look at processes involved". Also, the findings from step three will be confirmed.

The purpose of the experiments reported in chapters 2 and 3 was to answer two major research questions:

RQ1: Can images lead consumers to different judgments?

RQ2: If yes – how can such image effects be explained?

1.5.1 Main Hypotheses

To answer my research questions and to promote my line of argumentation, I set up hypotheses that were to be tested in the experiments reported in chapters 2 and 3. The first and major goal was to find any image effects at all. Therefore, hypothesis H1a tests for the mere existence of image effects. H1b posits that these will tend towards the respective brand images:

H1a: Different brand images lead to different product quality ratings

H1b: Product ratings are in line with associated brand images

If image effects exist, the next question to ask is what processes are involved. As I have pointed out in my discussion of dual-process theories, involvement and knowledge are two key variables that should be related to image. In the domain of consumer judgment, involvement and knowledge represent the level of elaboration. Concluding from considerations on dual-process theories (e.g. Chaiken & Trope, 1999) and my notion of image possibly serving as judgmental heuristic in the sense of Tversky and Kahneman (1973, 1974) or as “energy-saving device” (Macrae, Milne & Bodenhausen, 1994), I at first assumed image effects would be decreased by high levels of involvement and knowledge. Accordingly, in chapter 2 I hypothesized:

- H2a: High involvement decreases the effect of image
H2b: High knowledge decreases the effect of image

I further expected a main effect of product usage on participants’ product ratings and a decreasing effect of usage on image:

- H3a: Product usage has a main effect on product rating
H3b: High product usage decreases the effect of image

Because no decreasing effects of involvement or knowledge on image were found in the first experiment, I subsequently adjusted these hypotheses to test in the opposite direction. Thus, image would represent an own factor, independent from involvement and knowledge:

- H4a: High involvement does not significantly decrease the effect of image
H4b: High knowledge does not significantly decrease the effect of image

Because in study 1, involvement and knowledge reached only marginal effect sizes that were nowhere near to the effect of image, I also addressed this issue in study 2. But it would have been too early to conclude from one study that these two factors, ubiquitous in the decision making literature, have no main effects on consumers' judgments. Rather, I supposed that in the specific setting of study 1, which focused on bringing up image effects before all other effects, involvement and knowledge may have been overridden by the image effect. Therefore, my co-authors and I hypothesized that both variables would show their main effects on consumers' product ratings in a setting with better balanced factors:

H5a: Different levels of involvement result in different product ratings

H5b: Different levels of knowledge result in different product ratings

Study 2 used stimuli from a product category which was known to be used by the majority of participants. Also, while in study 1, where two products were used of which our participants were known to share similar preference ratings, we changed this in study 2. We deliberately chose a product category supposed to evoke ambiguous reactions amongst participants. Hence, we asked for customer satisfaction, which allowed controlling the effects of image, involvement and knowledge against it. Further, it was possible to check for the separate effect of consumer satisfaction on product ratings and to compare it to the effect of image:

H6a: Customer satisfaction affects product ratings

H6b: Customer satisfaction affects product ratings less than image

1.5.2 *Outline of Research Objectives*

My research questions and the according hypotheses translate into a set of tasks and objectives to be followed, of which I will now draw a condensed outline to provide an overview.

Experimental Design and Manipulation. A major goal of the studies was to show effects that can be causally attributed to variations of image alone. Success or failure of this objective fundamentally depended on the experimental design and the manipulation used. I closely designed the experiments according to the scenario of “same message, different sender” which is well established in stereotype research. For my purposes, this meant presenting the same actual products to participants, but artificially modified to appear from different manufacturers. If participants were to rate these products differently, then these differences could possibly only be caused by the manufacturers’ brand images.

As advancement over prior studies, my objective was to treat image according to its multidimensional character. For example, taste test experiments are limited to a unidimensional dependent variable: taste. On the other side, studies on country-of-origin or prize image effects have a unidimensional independent variable: country-of-origin or prize, respectively. I wanted to disrupt these restrictions and bring up a study design that involves both multidimensional independent as well as dependent variables.

Product Domain. Selecting adequate product domains was important for several reasons. Foremost, products needed to be easily comparable to each other. They should also be familiar to a majority of participants, but show enough variance of knowledge levels. Given these premises, I decided that taste tests had been sufficiently explored. Also, I did not want to put on the outworn strait jacket of fast moving consumer goods (FMCG). Instead, I chose the media and telecommunications domains, in studies 1 and 2 respectively. They are close to both the information and services segments, which attract growing attention from scholars. Investigating these domains also seems to have more relevance considering today’s knowledge and services economy. Yet, media and telecommunications are still vastly underexplored as far as image research from the consumer viewpoint is concerned. Consequently, it was worthwhile to grab the chance and explore this open terrain.

Product Brands. From the two product domains, several brands had to be selected. Special care was taken regarding their respective images. In the first study, two brands from the newspaper segment were chosen, with exceedingly different images. The goal was to establish the experimental setup and with it, detect any image effect at all. Pretests were conducted to assure that the brands' images really are very different. Of course, the selected newspapers still needed to be comparable regarding aspects that are not directly related to image and quality, like publicity, distribution and topic variety. In the second study, internet providers were the image holders. Contrary to the prior study, all three relevant brands were examined so that a majority of participants could be supposed to be actual customers. The brand images were also less strongly differing than in study 1, in order to achieve a better balance between image, involvement and knowledge.

Stimuli. It was most important to create credible stimuli that would allow manipulating only the conveyed brand images. They should appear as originals from the respective brands, while actually they consisted of the exact same content. For the newspapers, I made up a story that could be credibly assigned to both newspapers. Then, the desktop publishers from the two publishing houses incorporated this very text in their typical layout and design. The same procedure was conducted with fictitious advertisements for internet access offerings in study 2.

Product Quality Ratings. Both studies used product quality ratings as dependent variables. They were constructed so that participants knew exactly that they had to rate the actual products, not the manufacturers brands – but at the same time, participants should at all times be well aware from which manufacturer the product to be rated originated. If this could be achieved, it would have been most likely that the product ratings got influenced by the manufacturers' brands.

Control Variables. Demographic information was surveyed in order to control for possible effects of age, sex and educational status. It seemed plausible, for instance, that people with lower educational status would rate the *Blick* newspaper brand higher. Yet, such were considered as control variables, and no respective hypotheses were made. But a number of exploratory data analyses of ad hoc hypotheses were conducted and will be reported in the general discussion.

Usage. Product usage was also surveyed, as high usage is usually expected to increase involvement and knowledge about the product category and related brands. Nevertheless, although not specified as a hypothesis, I carried an a priori assumption that product ratings were only loosely depending on usage, but rather on image.

Customer Satisfaction. Next to usage, customer satisfaction was considered in study 2. Other than in the newspaper media segment in study 1, where usage is supposed to be highly correlated with customer satisfaction, usage and customer satisfaction may differ for internet access products, because the variety is narrower and a change of the internet provider is more complicated and involves time and effort. The effect of customer satisfaction on product evaluation was a main objective of study 2. Additionally, it served as control variable in the multivariate analyses of covariance (MANCOVA) for the effects of image, involvement and knowledge.

Measuring Involvement and Knowledge. For the assessment of involvement and knowledge in study 1, a set of items collected from similar consumer psychological studies was used. They proved to be sufficient – above all, the main focus here was to find the effect of image. This was improved in the second study, where we used the scale proposed by Jain and Srinivasan (1990) for measuring involvement. For knowledge, we constructed a scale following the examples of Richter, Naumann and Groeben (2001) and Stephens (2006). We did not use the existing scales because the first was outdated and the second did not exactly match our knowledge domain. For measuring knowledge in the domain of internet access products, we considered adequate scale items as a requirement for valid results.

Taken together, the steps outlined were designed to identify, quantify and qualify the main and interaction effects of image, involvement, knowledge, usage and customer satisfaction on consumers' product ratings in the domains of newspaper media (study 1) and internet access providers (study 2) and hereby, to answer my research questions: Can images lead consumers to different judgments? And if so, how can such image effects be explained?

1.5.3 Overview of the Following Chapters

The research objectives outlined in the preceding sections are considered in detail in chapters two and three. To test the hypotheses, two experiments were conducted, accompanied by a number of pretests to assure a working manipulation of the images only.

In chapter 2, the focus was on the adaptation of the experimental paradigm “same message, different sender” to consumer psychology. Daily newspapers were chosen as product domain, because of early experiences from focus groups on newspaper images that I had conducted with my classes and with colleagues. In these focus groups, it turned out that almost everybody holds images of the major newspaper brands. These images varied regarding levels of detail, but it seemed as if they were salient and mostly overlapping. These qualitative findings were confirmed by two quantitative image pretests on the images of three major Swiss newspaper brands: *Blick*, *NZZ* and *Tages-Anzeiger*. First, another pretest was conducted that identified the relevant brand image dimensions, loosely following Aaker’s (1997) brand personality scale. From these preliminary studies, it turned out that *Blick* and *NZZ* both had most salient and also very distinct images. Hence, they were used as image bearers. Two newspaper articles were created for the experiment, with the same content, but in the layout of the respective brand. As I have pointed out, credible stimuli were essential for a successful manipulation. Therefore, pretests were conducted to test the credibility of the manipulation.

Subsequently, the main experiment could be conducted. Participants were invited for a study on media recognition. They were assigned to one of the conditions and were presented the fictitious article. After reading, the article was rated on a set of relevant attributes. This was followed by an assessment of involvement, knowledge, usage and demographic items. A set of additional items was included as control variables, for example usage of newspaper media. Also, items were added to assess if image effects would also influence participants self-reports, for instance regarding emotional states. The expected differences in the evaluations of the newspapers were confirmed. Also, this image effect was neither moderated by involvement nor knowledge. In fact, of these three, image showed by far the strongest effect.

The purpose of chapter 3 was to elaborate on these findings. For one, we wanted to replicate the image effect in another product domain. More importantly, the effect sizes should be leveled more equally between image, involvement and knowledge. Such would make the factors more comparable and possible interactions easier to detect. The objective of this was to test whether image would again exhibit the same independence from involvement and knowledge as in study 1. As additional independent variable, customer satisfaction was introduced.

Chapter 3 built on the same experimental paradigm as chapter 1. Analogous preliminary procedures and pretests of materials were conducted to assure the applicability of the product sector, brands, stimuli and a relevant set of image and product rating attributes. Three brands offering internet access products were chosen. Four stimuli were created that described fictitious products, three branded and one no-name. As in the prior study, participants were invited to rate them, and subsequently, improved scales for involvement and knowledge were administered. We succeeded in leveling the effects of image, involvement and knowledge. As hypothesized, involvement and knowledge did not moderate image. Furthermore, the effect of customer satisfaction on product evaluation was smaller than the effect of image.

In chapter 4, I will discuss the studies in combination. I will relate to relevant other research and align my findings in between consumer psychology and social cognition. Finally, I will sketch down further research pathways by reflecting my work and suggesting on improvements and alternatives for image research.

2 Image Effects: Consumers' Stereotypical Product Ratings

Running head: IMAGE EFFECTS

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Abstract

Image has strong effects on consumer behavior, but is difficult to measure. It affects brand preferences, quality ratings and other human decisions. The goal was to bring such image effects to light. 220 undergraduate students participated in an online survey and rated artificial, but realistic articles from two newspapers with different reputations. Pretests were conducted to gather image profiles of the Swiss newspaper market. This allowed choosing brands with distinct reputations: *Blick*, a popular tabloid newspaper and *NZZ*, a traditional quality newspaper. Two stimuli were constructed with care to appear as copied from either one. In fact, the same text was used in all conditions. The main hypothesis was that product ratings would differ due to the manipulation of image. This was confirmed: Participants evaluated the fictitious articles completely different. As expected, product ratings tended towards the respective brand images. Also, product stimuli that conveyed their associated brand images more saliently elicited stronger image effects. The effect persisted at both holistic as well as detailed product rating levels. Next to product ratings, image effects were also found to influence participants' self-reports. Neither involvement, nor knowledge, nor usage moderated the image effect, possibly due to the salient images of the brands used and the correspondingly large effect sizes. The present study is the first to show the causal effects of brand images on consumers' product quality ratings in the domain of newspaper media.

Image Effects: Consumers' Stereotypical Product Ratings

“Fine feathers make fine birds” – this saying holds true for brand image, too. In recent years, image has been regarded as becoming an ever more important factor in human reasoning, especially when looking at buying decisions. Concerning consumer psychology, it is a well known fact that many products differ less in what they are, but more in what they seem to be (e.g., Ballantyne, Warren & Nobbs, 2006). And what they seem to be is largely determined by the products' brand images. In other words, brand image is what makes the consumer buy – or not (e.g., Aaker, 1991). This is true not only for fast moving consumer goods (FMCG), such as candy bars or toothpaste, but also for intangibles in the service, media and telecommunication sectors. While image effects are well known in areas such as retail marketing, (e.g., Martenson, 2007), political marketing (e.g., Cwalina, Falkowski & Kaid, 2005; Yannas, 2002) or tourism marketing (e.g., Hankinson 2005; Hosany, Ekinci, Uysal, 2006), the present study aims at revealing image effects in the previously unexplored domain of newspaper articles. The main goals were to find evidence for effects that are solely caused by image, and to do this by the means of measures that do not directly ask consumers about the image of the brand in question.

Image Effects

Image has manifold effects. For one, even professional buyers obviously cannot always withstand the temptation of image: Although purchasing agents are generally thought to be better informed than average consumers (Webster & Wind, 1972), their evaluations of product quality nevertheless depends on the image of the manufacturing country (Verlegh & Steenkamp, 1999). Non-governmental organizations (NGOs) also emphasize their brands: For example, Greenpeace and Amnesty International take good care of their brand images when they act, as Metzinger (2004) states. This holds true for political parties too, which has engendered a whole industry of political marketing (Kreyher, 2004).

Despite image being such an important factor, image research has so far mostly been applied research, focusing on the description, maintenance and modification of

image, leaving an open space for basic research on the inner workings of image effects. Although the importance of brand images for consumer judgment making is ubiquitously described and corroborated in the literatures on marketing and consumer behavior (e.g., Essig, De Russel & Semanakova, 2003; Glogger, 1999; Kotler, 2007; Kroeber-Riel & Weinberg, 2003; Trommsdorff, 2004), specific attempts to provide experimental evidence for the direct effects of image on consumer behavior have been rarely undertaken in consumer psychology (Trommsdorff & Becker, 2005). Consequently, the present study has two major goals: First, to reveal image effects and make them visible. Second, to do this by the use of an indirect measure, remaining as unobtrusive as possible and masking the real intention.

At this point, a working definition of the image concept is needed. Looking at the many descriptions of image, I favor a recent one of Trommsdorff and Becker (2005, translated by the author):

The image of an object is a holistic, stable, schematically simplified, valuated and more or less unified notion of an object, being shared by a group, a market segment or a subculture. Images which are uniform within a social group are social schemata. They may become stereotypes if they get consolidated. ... In modern image research, images are conceived as views one may have of complex objects which may barely be described in all of the relevant attributes.

Considering these notions, the aspects of image as stereotypical, summing up, attitude-based and directed towards a single object should be emphasized. Accordingly, I propose to define image as the *stereotypical sum of individual attitudes towards a single object*. I stress that the stereotype construct is contained in my definition and also, that an object can only have one single image. Tucker (1961) first suggested that brand images might partly consist of stereotypes. This basic idea is followed in the present study. I propose that image effects in consumer behavior are analogous to what stereotypes are in social cognition.

Stereotypes appear when individuals think categorically about others (Macrae & Bodenhausen, 2000). Hereby, information is drawn from cognitive schemata, which

contain simplified information about objects. This is mostly considered as a fallback system for when cognitive resources are limited and thus, information is processed with less effort and more automatically. In terms of consumer psychology, this means that image effects occur when consumers think categorically about products. Accordingly, images themselves contain schematically simplified information about brands. Because products are associated with their manufacturers' brand images, consumers are supposed to draw information about products from these images, if resources are limited.

However, social cognition research found that stereotypes may prevail even when individuals try to control automaticity, possibly due to ironic monitoring processes (Wegner, 1994). Following my line of arguments, image effects might also prevail when consumers think about products.

Considering the proposed familiarity between image effects and stereotypes, research on image effects may draw from the same theoretical foundations (e.g., Moskowitz, 2005) and may be investigated by similar research scenarios as stereotype research. An illustrative study that builds on the very same analogy was conducted by Maheswaran (1994), who found that country image may be used as a schematic cue for product evaluations. He also found that experts relied less on country image cues than novices, but only if the argument strength of the other available cues was strong.

Image-Related Research in Various Domains

In this context, some previous studies suggest the importance of image when it comes to buying, voting or other decisions. For one, Allison and Uhl (1964) were amongst the first to prove the impact image has on consumers brand preference. They set up a taste test in which participants had to rate product quality of either labeled or unlabeled beer bottles. Ratings were higher when there were labels on the bottles than when the labels had been peeled off. Furthermore, the rating of the worst rated labeled beer was higher than the rating of the best rated unlabelled beer. Surprisingly and contrary to popular belief often retold in urban legends (Brunvand, 1981), Allison and Uhl's seminal experiment has sparsely been repeated by others. One of a few was Makens (1965), who found analogous results for turkey meat that was labeled by either

a well known or an unknown brand. Later, Nevid (1981) verified such moderating effects of different brand labels for soda water. As he pointed out, products may be rated by their intrinsic and/or their extrinsic cues, of which image belongs to the latter. Intrinsic cues for soda water would be taste or carbonation, while extrinsic cues would be brand label or bottle shape. A more recent study has been conducted by Wansink, Park, Sonka and Morganosky (2000). Similar to the 1974 Pepsi Challenge (Foley, 1995), in which extrinsic cues like packaging and brand logo (*Pepsi* or *Coca-Cola*) determined passers-by's product quality rating, they set up a "Phantom Ingredient" taste test. Soy labels and health claims on the packaging of a nutrition bar were found to negatively bias taste perceptions, demonstrating that not only brands themselves, but also product categories (health) and product ingredients (soy) may be bearers of images.

A quite different aspect of image effects has been demonstrated by Sirgy's (e.g., 1983, 1985) pioneering studies on self-congruity versus functional congruity. He revealed that consumers strive to bring the images of the brands they prefer into congruence with their self-identity. Sirgy's findings have been replicated by others, i.e. Escalas and Bettman (2003, 2005). Escalas and Bettman (2003) essentially confirm that consumers choose the same brands as their peer groups. In a later study, Escalas and Bettman (2005) specified that this effect is stronger for more symbolic products than for less symbolic ones.

Just how effective images are has also been demonstrated by Shiv, Carmon and Ariely (2005) in a study on price image. Inspired by medical placebo research, they set up an experiment in which participants had to solve puzzles, just after consuming an energy drink that was either regular or discount priced. Indeed, in the discounted condition, fewer puzzles were solved. While no positive effect of consumption of energy drink vs. control group was found when only price image was modified, participants solved more puzzles in a variation of the experiment where they had been additionally exposed to salient advertising claims raising expectations on the effectiveness of the drink. This implies that image effects may depend on the directionality of conditions: When no effect is present in an upward direction (e.g. enhancing puzzle solving performance), there may nevertheless be an effect downwards (e.g. reducing puzzle solving performance). Irmak, Block and Fitzsimons (2005) found that positive energy drink placebo effects work only for consumers who desire to be

stimulated by the drink. These results are of relevance outside the medical domain in a marketing context, as has been discussed by Borsook and Becerra (2005) in their meaningfully titled paper: "Placebo: From Pain and Analgesia to Preferences and Products".

A study by Carpusor and Loges (2006) illustrates how ethnic subgroups are affected by their image. This phenomenon is well known from the literature on stereotypes and prejudice and demonstrates the close relationship between the concepts of images and stereotypes. The authors sent out an e-mail to landlords, containing rental inquiries. The fictitious sender was varied to have either a typical Arab, white American or African American name. E-mails from senders with white American names received far more e-mails inviting them than the other two, while African American names fared worst. The experimental setting was similar to the one reported in a study titled "Are Emily and Greg more employable than Lakisha and Jamal?" (Bertrand & Mullainathan, 2004). Résumés with the respective ethnic names were sent out to employers, who indeed invited applicants with white American names more often to a job interview. These findings remind image researchers of the country-of-origin effect, of which Verlegh and Steenkamp's metaanalysis (1999) provides a thorough review. In short, consumers' product quality ratings, affective associations and purchase intentions vary depending on the manufacturing country. For example, a majority of consumers favor German cars instead of French cars, but prefer French wine instead of German wine.

Such has been replicated by others (e.g., Lee, Frederick & Ariely, 2006), in different domains and expanded to include different variables moderating the use of extrinsic cues, hence image. Taken together, the literature reviewed so far makes a clear statement about how strongly image affects behavior and that this is the case in diverse situations. I strive to extend this research line into the domain of newspaper media, where image effects have not been investigated before. It is also a different domain than placebo effects, taste tests and ethnic stereotypes. If image effects were found, it would provide further evidence for what the studies outlined above suggest: that human behavior may be affected by image alone.

Image Measures

Images contain the sum of individual attitudes towards objects, as Trommsdorff and Becker (2005) state. Herein lies a major concern well known to every attitude researcher: “Do people mean what they say?” (Bertrand & Mullainathan, 2001). Even though in market research this is often being overlooked, for the purpose of image research, we need to address the issue of how the latent constituents of consumers’ attitudes may be revealed. Because images are holistic collections of conscious as well as non conscious properties of attitudes (Trommsdorff & Becker, 2005), they cannot be accurately retrieved by asking “What is your image of brand X?” Instead, indirect measures would be preferred.

The idea of assessing attitudes by using indirect measures has come up early in the history of psychology. Originally, indirect measures were implemented to overcome distortions caused by social desirability, as for example with the Lost Letter-Technique (Milgram, Mann & Harter, 1965). The scope of implicit measures is now broader and aims to detect attitudes that are hidden for other reasons than social desirability. These are numerous and not fully revealed. Greenwald and Banaji (1995, p. 8) therefore speak of implicit attitudes as “introspectively unidentified (or inaccurately identified) traces of past experience that mediate favorable or unfavorable feeling, thought or action towards social objects”, whereas here in our context of consumer behavior, image bearers are the targets of such implicit constituents. More modern approaches like the Implicit Association Test proposed by the same authors (1995) or the Affective Priming Task by Fazio, Sanbonmatsu, Powell, and Kardes (1986) take this into account. While they are helpful for quantifying unidimensional attitudes, they are not yet capable of providing multidimensional measures, as they would be needed for obtaining differentiated image profiles.

Against the background of these considerations, there is an obvious need for a measure that would be as unobtrusive as possible, which at the same time retains the multidimensionality inherent in conventional image profiling methods like image differentials. Therefore, and aspiring to explore causal relationships, the aim was to find an experimental manipulation that allows for hidden modification of only the image-

related cues, in order to detect both explicit and implicit constituents of image effects. In Mast and Zaltman's (2005, p. 426) words:

Considerable evidence suggests that in many circumstances, an implicit measure may be a better predictor of actual consumer behavior. In the future, market research that combines explicit, implicit and behavioral variables will be necessary to further reveal the interrelation between conscious and unconscious information and its impact on consumer behavior ... The use of implicit measures will provide more reliable predictions and may also help us learn how to improve the design and use of explicit measures.

Remarkably, these authors used advanced neuroimaging techniques for detecting implicit brand preferences. The downsides of this otherwise promising approach are that it is costly and only suited for unidimensional attitude measurement. Instead, the experimental paradigms of labeling effects and blind taste tests were adapted for the present study.

To summarize: Image effects are ubiquitous and important, but capturing them unobtrusively while also including implicit aspects is not easy. Therefore, the aim of this paper is to extend the research on image effects onto the newspaper domain and to make them directly visible, by the means of a measure that can capture the whole dimensionality of relevant image dimensions. Although for now we lack an unobtrusive multidimensional image measure, the experimental manipulation should remain as hidden as possible. This is achieved by a setup where only the image of the product is varied, while the actual product is identical across conditions. Such a procedure may not be completely unobtrusive to participants, but by asking them about the attributes of a specific article and not directly about the attributes of the newspaper brand behind it, a certain degree of unobtrusiveness is retained. Moreover, the multidimensionality of the image construct may be taken into account.

Newspaper Articles

The choice of newspaper articles being the domain of investigation has important reasons. First of all, because articles allow the creation of highly plausible stimuli by an elaborate technique, described in the method section. Furthermore, the newspaper market in Switzerland, where this study has been conducted, is saturated. Cut-throat competition is going on between publishing houses with strong newspaper brands, while at the same time the market is split up in well defined segments which are each occupied by one or two brand newspapers that can be regarded as prototypical. For this reason, an assortment of several newspapers with concisely shaped images is available: *Blick*, *NZZ*, *20 Minuten* and *Tages-Anzeiger*. These appear supraregionally in the German speaking part of Switzerland and are best known to the public, which serves our purpose. Also, the images of Swiss media brands – especially print media – are virtually unexplored and hence have a substantial backlog, as a literature search has confirmed. Finally, newspaper articles as stimulus materials are ideally suited for covertly asking about the image attributes of the respective brands and therefore fulfill our desire for an implicit but at the same time multidimensional measure.

Hypotheses

From the previous line of argumentation, the following hypotheses were drawn for this study. Most importantly, I hypothesized that participants' evaluations of the articles would be affected by the sheer manipulation of the images and also that the ratings would be in line with the images of the two newspaper brands:

H1a: Product quality ratings vary due to manipulated brand images

H1b: Products ratings are in line with the respective brand images

Considering the ratings of *Blick* and *NZZ* in the two pilot studies, H1b implies that the article from *Blick* will be rated inferior compared to the article of *NZZ*.

Assuming an influence of product originality and salience on participants' perception of brands, I predicted a larger image effect if not only the brand name, but also the layout of the articles is manipulated:

H2: The image effect is larger if both brand name and layout are manipulated.

I further expected that image effects could be detected using a holistic, unidimensional measure as well as using a detailed, multidimensional measure that consists of different image attributes:

H3a: Image effects can be detected using a holistic, unidimensional measure

H3b: Image effects can be detected using a detailed, multidimensional measure

To explore possible moderator variables, I hypothesized that involvement, knowledge and usage would have main effects on product ratings as well as decreasing influence on the effect of image:

H4a: Involvement has a main effect on product rating

H4b: Involvement decreases the effect of image on product rating

H5a: Knowledge has a main effect on product rating

H5b: Knowledge decreases the effect of image on product rating

H6a: Usage has a main effect on product rating

H6b: Usage decreases the effect of image on product rating

Exploratory Research Questions

In addition to the study's main goal of finding and measuring image effects, I set up several exploratory research questions. These were thought to expand prior image research into the newly claimed domain of newspaper media and to generate new hypothesis for future image studies.

To explore whether the image manipulation would also have effects on other than image attributes, some self-report items were included in the survey. These were: "I feel unchallenged by the article", "I feel displeased by the article" and "I feel as being taken for a fool by the article". I included these items because I expected that images would not only influence concrete, specific product ratings on typical attributes, but also how consumers feel after consumption of the product. Such has rarely been considered in prior image studies.

H7: Different brand images elicit different self-reports after consumption

Additionally, a factor analysis of the product rating dimensions should be conducted in order to reveal the dimensions of consumers' newspaper quality ratings, which has not been done before. I also hypothesized that image effects could also be detected using these factors as dependent variables:

H8: Image effects can be detected on factor analyzed rating dimensions

Finally, as an interesting byproduct of the study, descriptive usage patterns should be revealed. I expected students' usage of *20 Minuten* and *Tages-Anzeiger* to be higher than their usage of *Blick* and *NZZ*.

Method

Initially, two pilot studies were conducted to test the basic assumptions of this study: first, different newspapers have different images. Second, readers rate the respective products accordingly. Both assumptions were confirmed. Summaries of the pilot studies can be found in the appendices 6.1.1 and 6.1.2.

In order to find the best suited newspaper brands for the main experiment, a series of three pretests was conducted, two with laypeople and one with experts. The purpose was to identify two newspapers that had most distinct images, but were still comparable regarding circulation rate, price and content variety. Initially, *Blick*, *NZZ* and *Tages-Anzeiger* were considered. The now popular *20 Minuten* was deliberately excluded, as it is distributed freely and entered the market only shortly before this study was conducted. It was therefore not comparable using the same set of image dimensions. Also, inclusion of *20 Minuten* may have narrowed the variance of ratings between *Blick*, *NZZ* and *Tages-Anzeiger*.

Lay Pretests

For the first pretest, a random sample ($N = 24$) was asked to rate all of the three newspapers. A paper & pencil survey with an attribute assignment task was conducted on the 17 most relevant image items. These were previously identified by a standard free listing association task, conducted in an undergraduate course on consumer psychology. *NZZ* was consistently rated as serious and classy, as well as reliable and well investigated, *Blick* as sloppy and sexist, cheap and superficial, with *Tages-Anzeiger* being positioned between the other two. The results confirmed the hypothesis of the newspapers having clearly different images, which is a requirement for the main experiment. They also clearly stated that *Blick* had the worst and *NZZ* the best overall image. The pretest results are summarized in Figure 2 as traditional image profile and in Figure 3 as radar chart for better visual comparability.

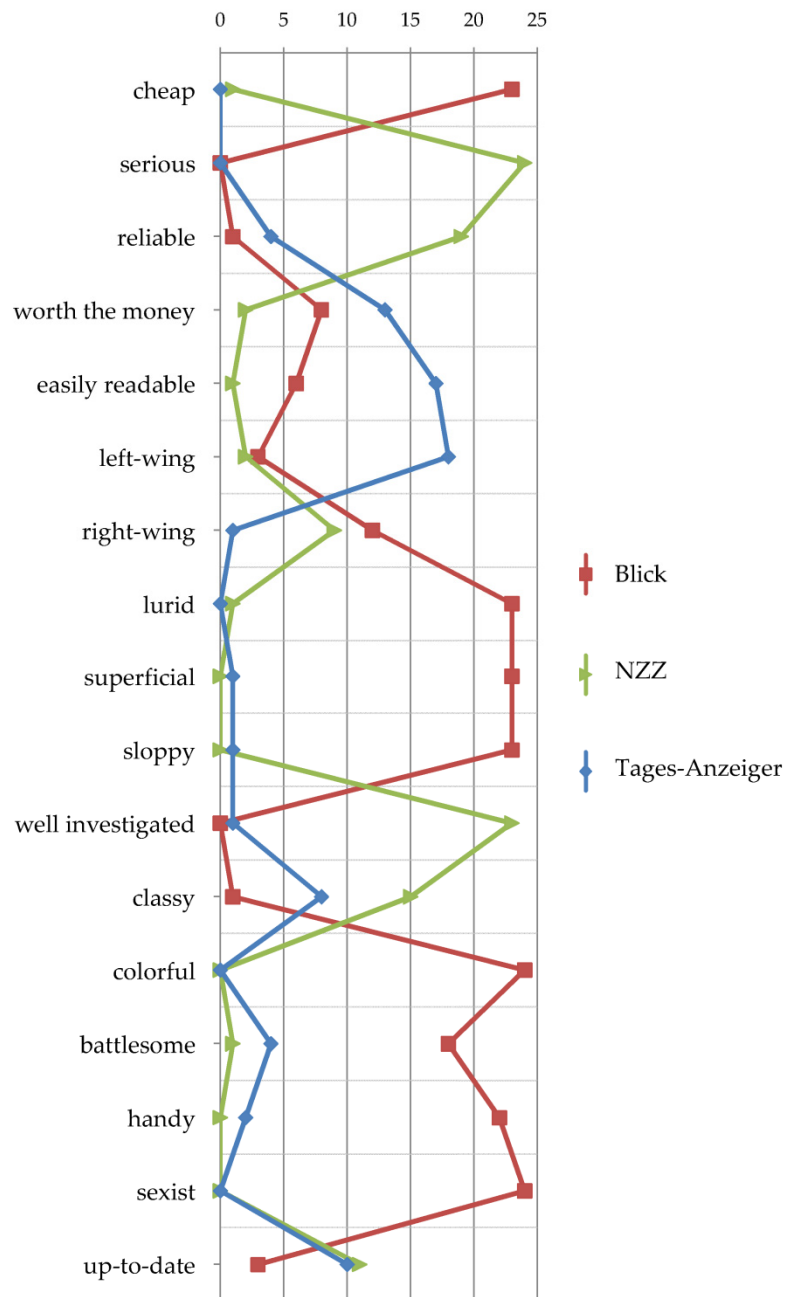


Figure 2: Image profiles as resulting from the lay pretest.

Note. Participants were asked to assign each attribute to the newspaper that fitted best. The scale ranges from 0 (no participant assigned the attribute to the newspaper brand) to 25 (all participants assigned the attribute to the newspaper brand).

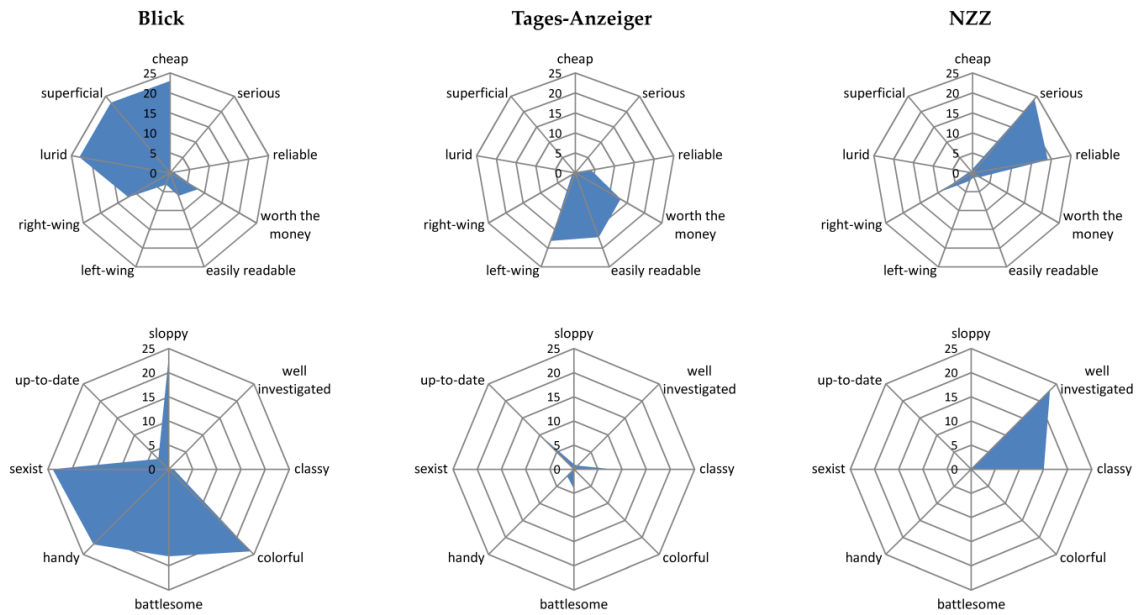


Figure 3: Radar charts of the same image data as shown in Figure 2.

Note. This figure offers a more intuitive visual comparability of the brand images. One can easily see that the larger the colored part is in the diagram, the more concise the image of the respective brand is. Therefore, *Blick* has the most concise image of the three. Another conclusion may be drawn from the degree of overlap. The less two titles occupy the same sectors in the radar, the more distal their images are.

Although the results are completely in line with the expectations, the first pretest had two limitations. Sample size was at the lower end and the image measure using attribute assignments has limited discriminatory power. Thus, to reassure the premise that the images of *Blick* and *NZZ* are in fact sufficiently different, the pretest 1 was replicated. Pretest 2 was conducted as an online survey ($N = 65$) with an improved set of image attributes on standard Likert scales. *Tages-Anzeiger* as the brand in the middle was no longer needed and has been excluded from further assessment. Again, the newspaper ratings differed as expected and showed a pattern analogous to pretest 1. The results are summarized in Table 1 and plotted as image profiles in Figure 2. Nearly all of the scale items reached significance and medium to strong effect sizes.

The findings from these two pretests provide clear evidence that *Blick* and *NZZ* are rated most different by consumers, which is a major prerequisite for the main experiment. Moreover, the pretests revealed the specific image profiles of the two brands, which is a noteworthy side result and valuable for the market research audience.

Table 1

Pretest 2: Image Comparison Between Blick and NZZ. Online Survey, N = 65. Mean Ratings for Image Scale Items, Standard Deviations, t-Values, p-Values and Effect Sizes. Scale is Divided in Attributes and Topics. See Figure 4 for Image Profile.

Item	<i>Blick</i>		<i>NZZ</i>		<i>t</i>	<i>r</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
<i>Attributes</i>						
eloquent	1.74	.68	3.19	.83	6.86***	.69
boring	3	.93	3.39	.88	1.79	.21
factual	1.68	.54	3.77	.62	14.05***	.87
comprehensible	2.48	.57	1.68	.54	-5.67***	.58
investigating	2.42	.62	2.48	.93	.3	.04
serious	1.29	.53	3.84	.69	15.98***	.9
lurid	3.68	.91	2.23	1.02	-4.53***	.6
cynical	3.39	.92	2.61	.84	-3.0**	.4
informative	1.45	.57	2.97	.66	9.11***	.78
easy-to-read	2.9	.79	1.84	.64	-5.28***	.59
handy	3.13	1	1.71	.74	-5.92***	.63
readable	2.61	.66	1.77	.5	-6.79***	.58
sustentative	2.87	.89	1.87	.81	-4.15***	.51
credible	1.39	.5	3.55	.77	12.88***	.86
informative	1.45	.51	3.1	.75	11.48***	.79
moral	2.19	.75	3.68	1.01	6.17***	.64
eclectic	1.81	.7	2.61	.76	4.75***	.48
up-to-date	1.55	.57	1.9	.6	2.36*	.29
international	1.42	.56	3.32	.91	9.58***	.78
high quality	1.23	.43	3.84	.69	15.83***	.43
summing up	2.52	.85	2.35	.84	-.78	.1
<i>Topics</i>						
politics	1.35	.49	2.55	.81	7.03	.67
economy	1.29	.46	3.39	.99	11.18***	.81
sports	3.32	.7	1.52	.63	-10.64***	.8
travel	2.58	.67	3.58	.85	4.82***	.55
science	2.19	.87	4.03	.71	9.07***	.76
religion	3.03	.8	3.65	.8	3.87**	.36
fashion	4.06	.63	3.06	.96	-6.5***	.52
celebrities	3.52	.85	1.48	.93	-11.14***	.75

Note. * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, two-sided.

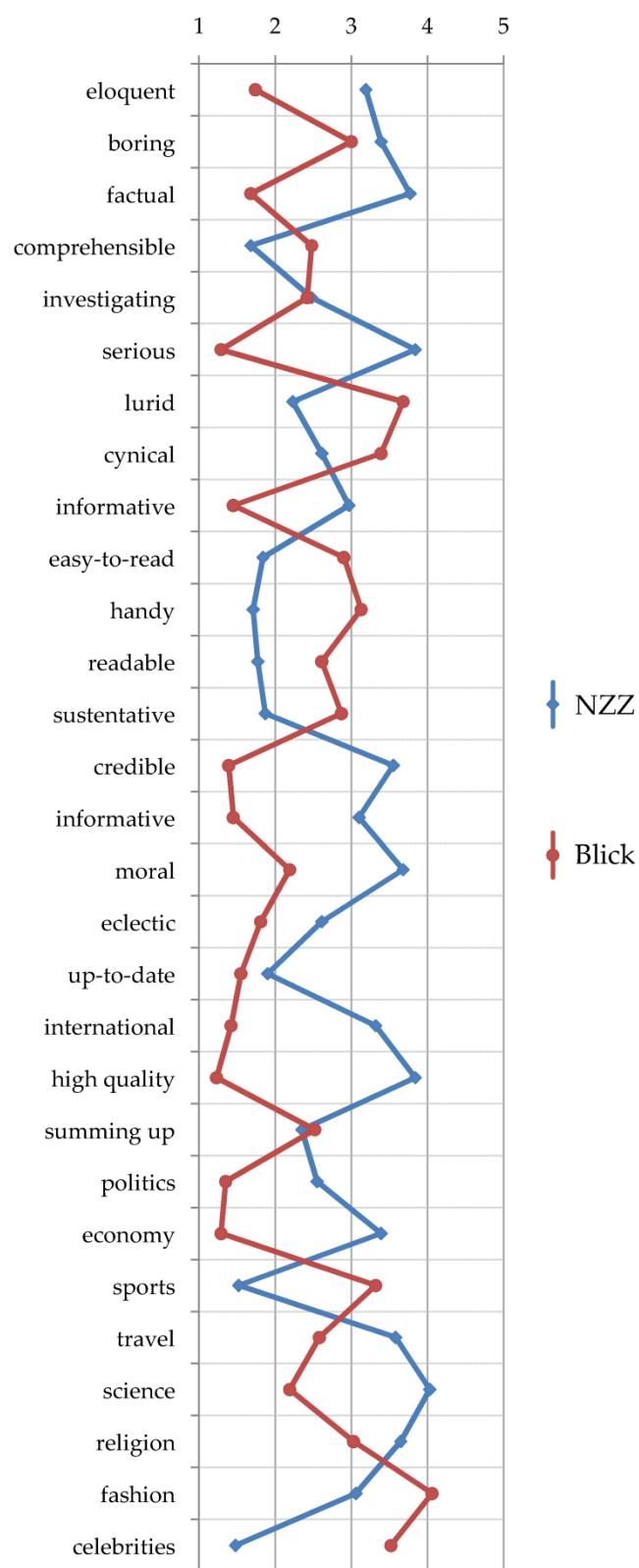


Figure 4: Image profiles for data of second pretest.

Note. Scale ranges from 1 (not at all) to 5 (very much).

Expert Interviews

As cognitive science suggests, experts have different representations of knowledge than laypeople (Reimann, 1998). This affects both structure and quantity of knowledge. Accordingly, this implies that experts are also holding different images. To test this, eight structured expert interviews were conducted. Experts were asked to rate *Blick* and *NZZ* on the same image attributes as in pretest 2. The purpose was to find out whether the different images resulting from the lay pretests would persist even when involvement and knowledge are high, as is the case with media experts.

The outcome of the expert interviews was essentially the same as with the lay pretests: *Blick* was generally regarded as sloppy and lurid, but also as easily readable. *NZZ* was rated as serious and credible, but also as elitist and more complicated. The interviews ended with an open question about general attitudes towards the two newspapers. It is noteworthy that experts expressed their general attitudes in a more salient and better structured way, compared to a group of lay students from a class on consumer psychology. This demonstrates that people sharing the same attitude may differ in their way of expressing this attitude.

Participants from all three pretests were also asked a question that would allow for detection of self-image congruity (e.g., Sirgy & Danes, 1982) regarding the newspaper brands: "Do you see yourself as a reader of *Blick* or *NZZ*?" A majority clearly assigned themselves to *NZZ*.

To summarize, the three pretests confirmed that the newspaper brands of *Blick*, *NZZ* and *Tages-Anzeiger* hold different images, which is fundamental for the purpose of exploring image effects. Because the image profiles of *Blick* and *NZZ* are most dissimilar to each other, with *Tages-Anzeiger* lying in between, these two were finally chosen as the stimulus combination best suited for the experiment.

Participants

A total of 220 participants (155 women and 65 men, average age $M = 26.4$, $SD = 7.8$) took part in the study. 196 were recruited via a publicly accessible mailing list for psychology students and completed an online survey. 24 were passers-by, recruited on campus to complete a printed version of the exact same survey. They were randomly

assigned to the experimental conditions. As in the pretests, the relative homogeneity of this sample is no threat to the validity of the experiment, because it would rather have acted conservatively on detecting image effects.

Materials and Manipulation

The stimuli were regarded as key elements for the experimental manipulation of image and therefore have been created especially careful. The experimental idea was to let participants evaluate a newspaper article from either *Blick* or *NZZ*. In fact, the same text was used in both stimuli. This allowed for a manipulation of only the extrinsic cues, hence image, while the intrinsic cues of the article remained unchanged. Similar manipulations have stood their test in research on stereotypes, for example in the studies by Bertrand and Mullainathan (2004) and Carpusor and Loges (2006) that have been discussed in the introduction. Their successful demonstration of labeling effects provided confidence that such a setup would also work in a consumer research context, by allowing to exchange the extrinsic cues of newspaper articles without modifying the intrinsic ones.

To achieve this, the same actual text was used and the specific “look and feel” of the respective newspaper was applied to it. Styled with the characteristic original typeface and layout and embedded within the typical header and page design, perfectly authentically looking articles could be created, as Figure 5 and Figure 6 illustrate. The digital production of the stimuli has been carried out by the two newspaper houses themselves, who each supported this research generously by assigning their original desktop publishers.

2 | **Blick** | DIENSTAG | 13. SEPTEMBER 2005 |

Handytarife Migros und Coop im Kampf um die Kunden

ZÜRICH. Mit welchem Anbieter telefoniert man am günstigsten? Einen Tag vor dem Start der Mobilfunk-Produkte von Coop und Migros kamen die Preise kurzzeitig ins Rutschen.

Angestossen wurde die Preistrunde vom Prepaid-Paket M-Budget-Mobile. Mit diesem ab sofort verfügbaren Angebot kostete ein Handygespräch gestern Montagnachmittag zunächst 48 Rappen pro Minute. Doch konnte Migros die Preisführerschaft nicht lange halten: Unmittelbar nach bekannt werden des M-Budget-Preises gab **Coop bekannt, sein Prix-Garantie-Abo für 46 Rappen anzubieten.** Offenbar hat man beim Konkurrenten ganz bewusst gewartet, bis die Migros ihre Preise veröffentlichte. Wenig später hiess es wiederum von der Migros, sie sei mit ihrem Partner Swisscom im Gespräch um eine nochmalige Preissenkung. Offenkundig war man erfolgreich, denn zum Redaktionsschluss hatte die Migros wieder den günstigeren Tarif: 44 Rappen pro Minute.

Im internationalen Vergleich bleiben die Schweizer Minutenpreise trotzdem teuer. Gemäss dem Internetvergleichsdienst Comparis bezahlt man für das günstigste Angebot in Deutschland nur 30 Rappen, im Mobilfunk-Paradies Österreich gar nur 14 Rappen.

Figure 5: Stimulus for *Blick*, created by the original desktop publisher

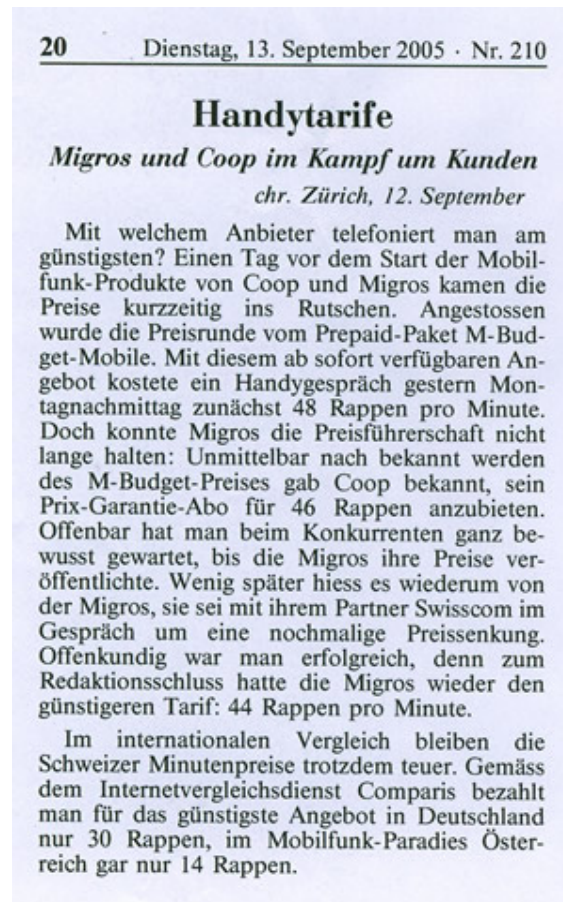


Figure 6: Stimulus for NZZ, created by the original desktop publisher

Because the two newspapers differ also in terms of writing style, an effort has been made to create a textual content that would be credible for both newspapers to appear in. To achieve this, a text from *Tages-Anzeiger*, the newspaper brand which had achieved intermediate image ratings in the pretests, has been chosen to serve as template. The article was rewritten to fit the needs in terms of length and style. Special care has been taken that the sentences were neither too long and complicated, nor too short and simplistic. Also, a content topic was chosen that fitted credibly into both newspapers: a story about the entrance of two large Swiss retailers into the mobile phone market.

The digital master copies received were printed on paper with a desktop color printer, slightly crumpled, cut out with a scissor and then scanned in on a flat bed scanner with moderate quality settings. This resulted in two picture files that looked as

if real articles from *Blick* and *NZZ* had been scanned. To pretest their credibility, both stimuli were then each sent by e-mail to 10 uninitiated persons. They were asked to read the material and send back their comments to the investigator. After receiving the comments, the students were contacted and asked if they did have any doubt whether the articles were original or not. No doubt whatsoever has been expressed. Instead, before the debriefing took place, comments were made that were similar to the findings from the pretests on newspaper images (e.g. "I didn't like reading an article from *Blick*" or "I found the article from *NZZ* to be a bit complicated").

Three additional stimuli were created in a neutral layout which by themselves could not be assigned to any newspaper brand. They appeared to participants as if they had been transcribed from an original source, using a standard default typeface and layout. One was titled "*Blick*", one "*NZZ*" and one neutrally as "newspaper article". These formed the "no layout" conditions.

Design

The experiment involved a 2×2 factorial between-subjects design with an additional control group. Source³ (*Blick*/*NZZ*) and layout (no layout/original layout) were the independent variables. The dependent variable was product quality. The additional control group rated the same text but received no layout and no source treatment.

Measures

Dependent Measures. Product quality as the dependent variable was measured in two ways: First, as holistic single-item preference rating ("How did you like the article read?"), which is an adaptation of the parsimonious procedure proposed by Sirgy et al. (1997); second, as a multidimensional product rating scale, obtained by attribute ratings, also known as adjective based product rating measure. This latter procedure is equivalent to semantic differential methods as established by Osgood (1957) and a

³ In the newspaper domain, "source" is identical to "brand". For better readability, I use the terms interchangeably in the following sections.

commonly accepted practice in image research. These two image measures complement each other.

The advantage of the one-item preference rating as dependent measure is that it may be regarded as the result of an intentionally diffuse, all-embracing summation of attitudes towards an object, requiring only low involvement and little time. Such an adaptation of Sirgy et al.'s (1997) single-item measure has recently been supported by other authors (e.g., Bergkvist & Rossiter, 2007), who argue that the predictive validity of a single item is comparable to scales using multiple items – as long as the concept investigated is “doubly concrete” (Rossiter, 2002): of general nature, simple and unambiguous – like image, for example.

Still, the disadvantage remains that such a measure does not allow for an analysis of which of the product attributes were more or less prone to image effects. Hence, multidimensional product rating scales were administered as a second, more multi-faceted measure. It was an intended purpose to see whether this more time consuming approach, which also necessitates higher levels of cognitive elaboration in the participants, might hinder image effects from showing up.

To explore whether the manipulation would also have effects on other than image attributes, a set of self-report items was included. Participants were asked if they feel unchallenged, displeased or taken for a fool. One item asked if they think they have been well informed by the article. Further, agreement to the statement “this article is an example of good journalism” was rated.

Moderator Variables. Because image effects are suspect to be moderated by other variables, several items were included to control for such. For one, knowledge is suspect to account for many effects on consumer behavior. Knowledge on the articles' topic was therefore rated by the item “How much do you know about the topic discussed in the article”. As a second possible moderator, involvement was evaluated by the question “How interested are you in the topic discussed?”

Further, product usage is a commonly assessed variable in consumer research. It was assessed by three items on a five point scale. The first usage item asked whether participants had subscribed to any of the four newspapers *Blick*, *NZZ*, *Tages-Anzeiger* and *20 Minuten*. The two brands *Tages-Anzeiger* and *20 Minuten* were added here in order to distract participants' focus away from *Blick* and *NZZ* and to make the rating

tasks more plausible, because in the pretests, many participants were found to read *Tages-Anzeiger* and *20 Minuten* more often than the other titles. It was also expected that these two brands might later prove useful as baselines for a general comparison of the image profiles of all four brands. A second item asked for how often participants usually read the newspapers. The scale ranged from “I never read this newspaper” to “I always read this newspaper”. The third item on the scale was a ranking task. *Blick*, *NZZ*, *Tages-Anzeiger* and *20 Minuten* had to be ranked according to the participants' brand preference. Usage and brand preference are usually highly correlated. If against the expectation a low correlation were to be found here, this would have offered interesting hypotheses for further research.

An item was included that asked for how seriously participants had completed the questionnaire. As a manipulation check, participants were also asked for how typical they found the article they had read and whether or not they had expected to find this article in the respective newspaper.

Next, several sociodemographic data were surveyed. Above all, education was suspect to possibly moderate the effect of image. Age, gender, and profession were also recorded. To infer whether a particular participant might at all have an image of the newspapers' brands, a question was added whether one lives in Switzerland and if so, for how many years. As a last measure, the same image profiling task that had been used in pretest 1 was administered. This way, if unexpected results had been obtained or if no image effects at all had shown up, it would have been possible to check whether this samples' participants actually held the same images of *Blick* and *NZZ* as the samples in pretests 1 and 2.

Procedure

Participants were asked to take part in a survey on media research. The invitation text involved a cover story, in order to hide from participants that in fact newspaper image was the research focus. The invitation stated that a newspaper article were to be evaluated. The survey was conducted in German. Participants in both the online and paper versions of the questionnaires were randomly assigned to the conditions. I wrote a small computer program in the PHP language so that the

participants completing the online survey were consecutively assigned to the five conditions, in order to reach the best possible balance of cases for each cell. Groups one and two received both the brand name cue as well as the layout cue. Groups three and four received the product stimulus without the layout cue, only with the brand name cue. Group 5 received the plain article with neither the brand name nor the layout cue and served as control group. The survey was implemented in PHPSurveyor (Schmitz, 2006), an open source survey tool. The survey software was chosen carefully to allow for specific modifications of all aspects regarding survey logic and stimulus presentation – an essential requirement for the intended manipulation.

The questionnaire was then presented on five separate pages. On the first page, the invitation text and cover story were displayed. Following this, demographic data were collected. Demographics were asked for at an early stage, in order to eliminate participants with low motivation that would later drop out and produce missing values. The stimulus was then presented as a graphic file embedded into the web page (“with layout” conditions) or as plain text (“without layout” conditions). The instruction was: “Please read this article from newspaper (newspaper name). Read just as you normally would. On the next page, you will be asked to rate the article. This is no test of knowledge.”

The fourth page involved the dependent variables, manipulation checks⁴ and control variable items on involvement and knowledge. All items were rated on five point Likert scales. The next page included the brand preference ranking task as described above, as well as items on usage and subscription of the newspapers. The page included an assignment task, in which participants were directly asked to rate the image of the two newspapers themselves. All conditions were asked to rate both *Blick* and *NZZ*. A final page was presented where respondents could leave their e-mail address if they wished to be informed of the outcome and whether they had filled out the survey carefully or not.

⁴ The experimental setting as implemented here per se does not require an explicit manipulation check, because if differing ratings were to be obtained from the conditions, they could possibly only have been caused by the manipulation. But if the ratings would not have differed, it would have been impossible to tell whether this were because of failure of the manipulation or for other reasons. Therefore, two items were included as explicit manipulation checks: “This article is typical for this newspaper” and “I wouldn’t have expected such an article in this newspaper”. Additionally, an open question was offered for free text comments about the article.

Results

Image Effects on Product Ratings

The most important hypothesis of this study was that product ratings vary if brand images are manipulated. This was first tested using a holistic, one-item product rating, obtained by the question: "How did you like the article read?" On a Likert scale ranging from 1 (lowest) to 5 (highest), participants in the treatment groups "with layout" rated the article from *Blick* differently ($M = 3.06$, $SD = .92$) than the one from *NZZ* ($M = 3.75$, $SD = .91$), $t(103) = 4.02$, $p < .001$, $d = .77$. Following Cohen's (1988) conventions, this indicates a strong effect of image. Therefore, H1a is accepted.

Hypothesis H1b posits that product ratings will be in line with the respective brand images, which means that a product from a brand with a specific image will be rated in accordance to that specific image. This was confirmed, as the mean value of the holistic rating for *Blick* ($M = 3.06$) is inferior compared to *NZZ* ($M = 3.75$).

Based on the assumption that a product stimulus conveys its associated brand image more convincingly if it appears original and realistic, I predicted that the image effect would be larger if not only the brand name cue, but also the layout cue were manipulated (H2). To test this, two of the five groups of participants received the articles in a neutral layout, only with the newspaper names as cues for brand image. An ANOVA of the holistic product ratings revealed significant differences amongst the four groups, $F(3, 155) = 5.56$, $p < .01$, $f = .3^5$. A subsequent post-hoc comparison using the Tukey HSD criterion found significant differences only for the two conditions with both the source brand name and the layout cues. These results both support H2.

The combined ratings of all four conditions show a continuous rise: from *Blick* with layout ($M = 3.06$, $SD = .92$) to *Blick* without layout ($M = 3.35$, $SD = 1.09$), *NZZ* without layout ($M = 3.64$, $SD = .85$) and *NZZ* with layout ($M = 3.75$, $SD = .91$). This series of means is illustrated in Figure 7. Primarily, this is further evidence for the hypothesis that products are rated according to their brands' images (H1b). Additionally, this pattern of means further supports the hypothesis that an image is

⁵ According to Cohen (1992), f is used as effect size indicator for one-way ANOVA, where values of .1, .25 and .4 indicate small, medium and large effect sizes, respectively.

triggered more saliently when the stimulus is offered in the original layout (H2). In other words, if the stimulus is presented with both the original layout cue and the brand name cue, ratings are elicited that are more determined and resolute compared to when no layout cue is given.

The findings reported so far clearly show that image effects can be detected using a holistic, unidimensional product rating measure. Consequently, the respective hypothesis H3a is accepted.

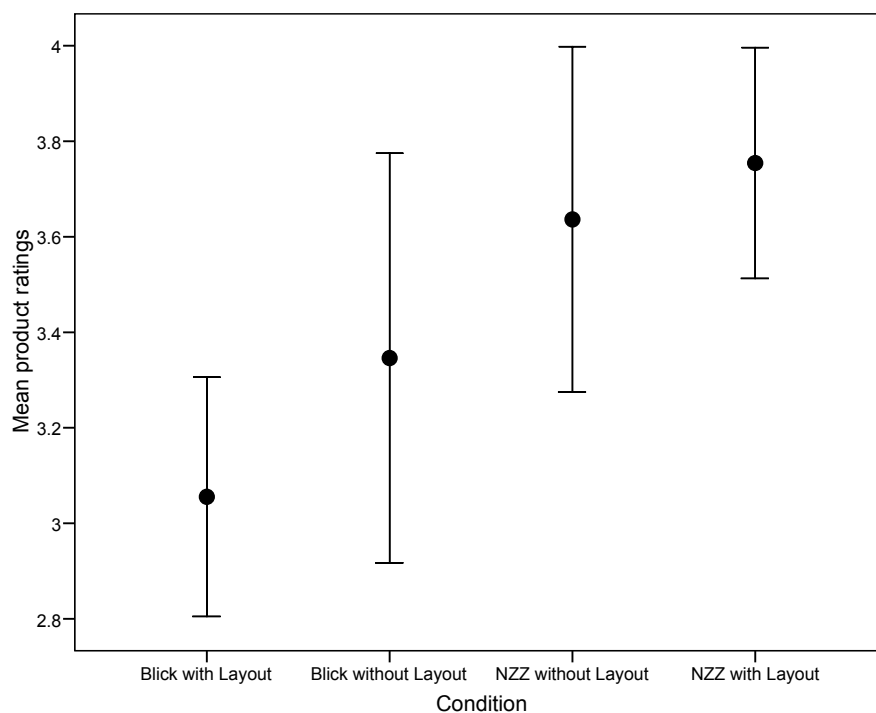


Figure 7: Holistic, unidimensional product quality ratings of *Blick* & *NZZ*. Points represent means, vertical lines standard errors. Scale ranges from 1 (very bad) to 5 (very good).

Manipulation Check. The manipulation was successful, as the results reported so far obviously demonstrate. Moreover, participants' free text comments indicate that they had no doubts regarding the stimuli. Rather, the written expressions contained personal statements like "I detest this stupid 'newspaper'" (typical comment for the *Blick* condition) or "The article is a good example for why I chose to subscribe to this newspaper" (typical comment for the *NZZ* condition). Such commentaries show how credible the image manipulation was.

Multidimensional Product Quality Measure. To further test the main hypothesis of image effects on product ratings (H1), a second measure for product quality was applied, consisting of a scale of multiple attributes relevant for newspaper quality ratings. As predicted, also this multidimensional product quality measure successfully detected image effects, therefore H3b can be accepted. The results are analogous to those of the unidimensional measure. Overall, the article is rated significantly different in the *Blick* condition than in the *NZZ* condition, except regarding the item “meaningful”. These findings provide additional support for hypotheses H1a and H1b. Mean comparisons and respective effect sizes are summarized in Table 2.

Table 2

Multiple Image Dimensions Comparison t-Tests. Mean Ratings for the two Conditions “Blick With Layout” and “NZZ With Layout”, Standard Deviations, t-Values, p-Values and Their Respective Effect Sizes. For a Better Overall Impression, These Data are Visualized as Profiles in Figure 8.

Dimension	<i>Blick</i>			<i>NZZ</i>			<i>df</i>	<i>t</i>	<i>p</i> ²	<i>d</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>				
thrilling	54	2.3	1.04	57	2.96	1.16	109	3.2	< .01	.61
sincere	54	3.04	.99	56	3.93	.87	108	5.02	< .001	.97
meaningful	54	3.17	1.19	57	3.56	1.15	109	1.78	.08	.34
truthful	46	3.83	.68	53	4.21	.57	97	3.05	< .01	.62
comprehensible	54	4.67	.55	57	4.26	.94	109	- 2.75	< .01	.53
sloppy ¹	53	3.02	1.07	57	4.02	.9	108	5.34	< .001	1.03
complicated ¹	53	4.66	.71	57	4.14	.93	108	- 3.28	< .01	.63
superficial ¹	52	2.17	1.12	56	3.05	1.2	106	3.95	< .001	.77

Note. ¹Item is reverse coded so that higher values mean better ratings. ²two-sided.

Conforming to a standard practice in image research, the results of the multidimensional product rating measure are visualized as profiles in Figure 8, which allows for getting a better overview of the findings.

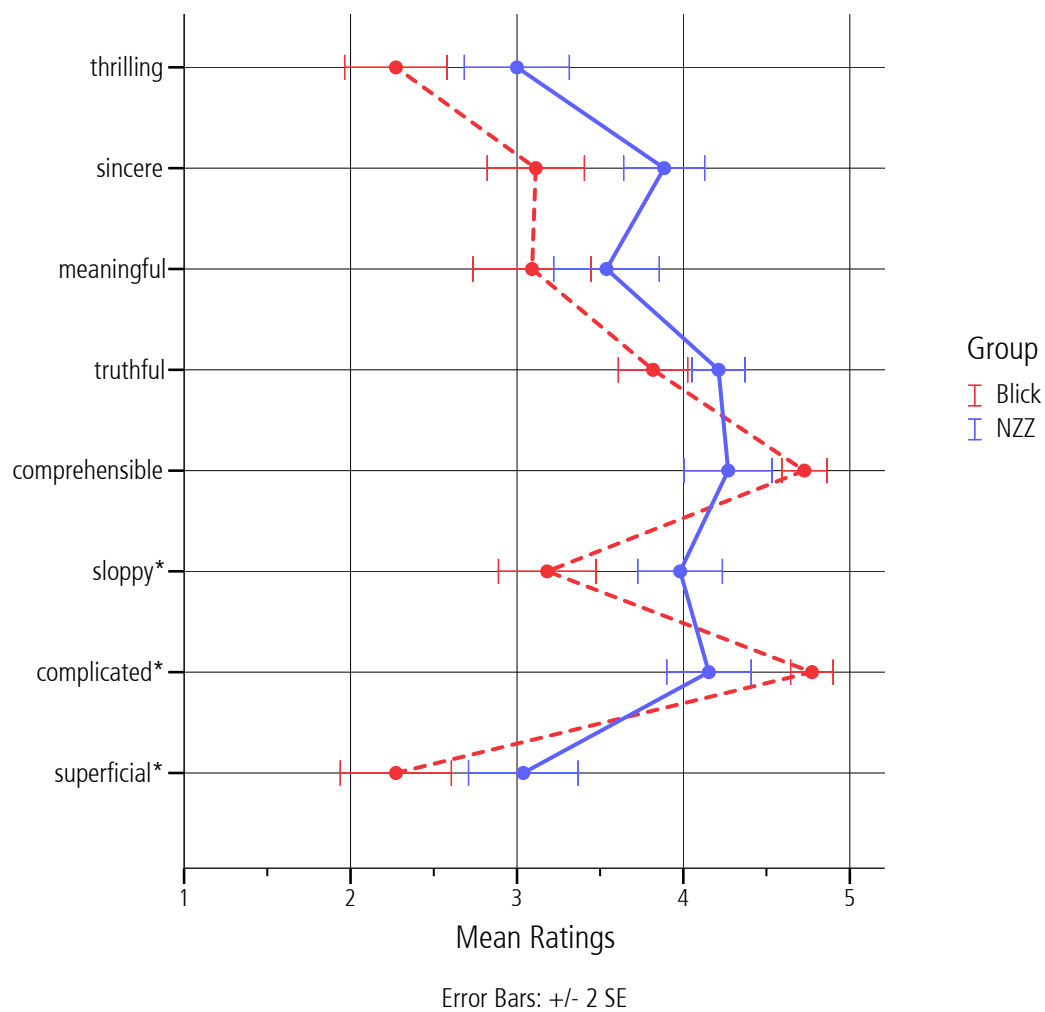


Figure 8: Image Profiles of Blick and NZZ. Items with an asterisk are reverse coded. The scale ranges from 1 (I don't agree at all) to 5 (I fully agree).

Multivariate Analyses. In addition to the single-item holistic product rating measure, a second holistic measure was obtained by using the items from the multidimensional measure as dependent variables for a MANOVA, with the two conditions of *Blick* and *NZZ* as independent variable. This offered a second, calculatory approach for obtaining a holistic product rating measure and hereby, the possibility to check for convergent validity of the two.

A correlational analysis of the product rating dimensions found that they are not independent from each other, as can be seen in Table 3. The correlation matrix suggests that the MANOVA procedure is appropriate for the product rating data.

Table 3
Intercorrelations of the Product Rating Dimensions

	1	2	3	4	5	6	7	8
1 Thrilling	–							
2 Sincere	.26**	–						
3 Meaningful	.49**	.43**	–					
4 Truthful	.27**	.58**	.37**	–				
5 Comprehensible	.2*	.12	.25**	.19**	–			
6 Sloppy	.31**	.70**	.47**	.43**	.14	–		
7 Complicated	.15	-.02	.34	-.02	.63**	-.02	–	
8 Superficial	.29**	.64**	.48**	.44**	-.05	.64**	-.15	–

Note. * $p \leq .05$, ** $p \leq .01$, two-sided.

As predicted, the MANOVA revealed an image effect consistent to the original holistic measure (Wilks' $\lambda = .62$, $F(8, 87) = 6.67$, $p < .001$, $\eta^2_G = .38^6$). The large effect sizes and the convergent validity of both holistic measures clearly support hypotheses H1a and H3a: Product ratings vary because of image effects and these can be detected on a holistic, unidimensional measurement level.

Two-Factorial Analyses. In order to test H2, some participants received the stimulus in a neutral layout. This made it possible to calculate the separate effects of the brand name cue and the layout cue. For that purpose, uni- and multivariate analyses of variances were conducted.

Regarding the unidimensional measure, a 2×2 ANOVA revealed a significant main effect of the brand name cue, $F(1, 159) = 9.23$, $p < .01$, $\eta^2_G = .056$. No significant effect was found for the layout cue ($F(1, 159) = .28$, $p = .6$) and the interaction between the brand name cue and the layout cue ($F(1, 159) = 1.58$, $p = .21$).

The same analysis was conducted with the items of the multidimensional product rating measure as dependent variables for a MANOVA procedure. The results are summarized in Table 4. As in the univariate analysis, the brand name cue had a significant effect, while neither the layout cue nor the interaction term reached significance. Above all, these two additional calculations, separating the factors brand name and layout, show that image effects occurred even in the two groups that received the less salient stimuli, without layout. This strongly supports hypothesis H1.

The expectation that the brand name cue would be more important than the layout cue was confirmed. However, because the layout cue also largely conveys the brand cue, this was considered as an exploratory test and no respective hypotheses were stated. Nevertheless, the identical patterns of results for both the two-factorial ANOVA for the unidimensional measure and the two-factorial MANOVA for the multidimensional measure suggest that the two measures are of high convergent validity and are both suitable for detecting image effects, as predicted in H3a and H3b.

⁶ As measure for MANOVA effect size, Partial Eta Squared (η^2_p) is often erroneously being reported as Eta Squared (η^2), as has been shown by Levine (2002). This is due to a misconception in the documentation for the SPSS software. Instead, I follow Bakeman's (2005) advice to specify the Generalized Eta Square (η^2_G) proposed by Olejnik and Alginate (2003) as indicator for the effect size, in order to assure comparability among ANOVA designs. For η^2_G , values of .02 may be considered as small, .13 as medium and .26 as large effects.

Table 4

Multivariate Analysis of Variance: Effects of Brand Name and Layout Cues on Product Ratings

	<i>df</i>	<i>F</i>	η^2_G	<i>p</i>
Brand Name	8	4.76***	.234	< .001
Layout	8	.55	.034	.81
Brand Name \times Layout	8	1.58	.092	.14

Note. As in the univariate analysis, η^2_G was chosen as effect size measure.

Subsequently to the two-factorial MANOVA, univariate, two-factorial ANOVAs were calculated, in order to identify the product rating attributes that account for the significant image effects revealed by the multivariate analysis. This is a common procedure for analyzing significant MANOVAs (Bray & Maxwell, 1982; Weinfurt, 1995). Table 5 summarizes the results. They basically mirror the findings of the t-tests for the multidimensional image measure, reported in Table 2, and provide further support for H1 and H2. An exception holds for “truthful”, which is due to the slightly reduced power of the two-way ANOVA. A one-way ANOVA reveals a significant image effect on this item, too ($F(1, 97) = 9.31, p < .01, \eta^2_G = .088$).

None of the ANOVAs indicate a significant effect for the layout cue alone. Because in the newspaper market, the layout cue is obviously a strong indicator for the brand, these two factors are likely to be confounded, as I have already stated. This causes overlapping variances of the layout cue and the source cue and explains the non significant result for the layout cue factor in any of the ANOVAs as well as in the MANOVA.

Table 5

Univariate ANOVAs for the Items of the Multidimensional Measure, Including the two No-Layout Groups. Mean Ratings, F-Values and Generalized Eta Squares

Dimension	<i>Blick</i> (n = 80)		<i>NZZ</i> (n = 80)		Brand Name		Layout		Brand Name × Layout	
	with layout	w/o layout	w/o layout	with layout	F	η^2_G	F	η^2_G	F	η^2_G
	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>F</i>	η^2_G	<i>F</i>	η^2_G	<i>F</i>	η^2_G
thrilling	2.30	2.48	2.64	2.96	3.89*	.029	.07	.001	2.46	.018
sincere	3.04	3.37	4.00	3.93	14.3*	.098	.794	.006	.35	.003
meaningful	3.17	3.56	3.77	3.56	1.64	.012	2.22	.017	.64	.005
truthful	3.83	4.04	4.06	4.21	2.24	.017	.072	.001	1.81	.014
comprehensible	4.67	4.63	4.50	4.26	3.99*	.029	.3	.002	.87	.007
sloppy ¹	3.02	3.44	3.95	4.02	9.39**	.066	.083	.001	1.4	.010
complicated ¹	4.66	4.70	4.23	4.14	13.2**	.091	.22	.002	.39	.003
superficial ¹	2.17	2.41	3.19	3.05	15.4**	.105	.42	.003	.31	.002

Note. Mean values. ¹Items is inverted so that higher values mean better ratings. * $p < 0.05$. ** $p < .01$.

Moderator Variables

The second most important question was which factors moderate the image effect. Foremost, I suspected participants' involvement, knowledge and product usage to be of influence. To test the respective hypotheses H4, H5 and H6, a MANCOVA was calculated. The items of the multidimensional product rating measure served as dependent variables and brand image as factor. The results are summarized in Table 6.

As predicted, the MANCOVA revealed that brand image influences product ratings the most, with a considerably large effect size of $\eta^2_G = .35$. This finding again supports the main hypothesis H1a.

Involvement also reaches significance, but with smaller effect size and higher p value. Therefore, H4a is accepted. Because involvement shows no significant interaction with brand image, H4b is rejected. The factor knowledge has no significant main effect on product rating and no interaction effect on brand image. The respective

hypotheses H5a and H5b are rejected. The same accounts for usage: H6a and H6b are therefore also rejected.

Additionally, sociodemographic items were surveyed. These were considered as control variables and no specific hypotheses were made. None of them had an effect, although this might be an artifact of the relatively homogenous student sample. They are therefore not reported.

Table 6

Multivariate Analysis of Covariance: Effects of Source Brand Image, Knowledge, Involvement and Usage

	<i>df</i>	<i>F</i>	η^2_G	<i>p</i>
Brand Image	8	5.36***	.35	< .001
Involvement	8	2.7*	.22	.011
Knowledge	8	1.07	.1	.39
Usage	8	.52	.05	.84

Note. As in all other analyses of variances, η^2_G was chosen as effect size measure.

Exploratory Research Questions

Self-Report Items. A set of self-report items served to investigate if images also affect other than product rating attributes. I hypothesized accordingly that different brand images elicit different self-reports after product consumption (H7).

Participants' self-report ratings of "I feel unchallenged by the article" were indeed higher for *Blick* ($M = 3.53$, $SD = 1.1$) than for *NZZ* ($M = 2.82$, $SD = 1.15$), $t(107) = 3.28$, $p < .001$, $d = .63$. They also reported feeling better informed by *NZZ* ($M = 3.46$, $SD = .97$) than by *Blick* ($M = 2.61$, $SD = .94$), $t(109) = 4.8$, $p < .001$, $d = .92$. The mean for "I feel displeased by the article" was slightly higher in the *Blick* condition ($M = 2.31$, $SD = 1.29$) than in the *NZZ*-condition ($M = 2.16$, $SD = 1.23$). This difference is only marginally significant, but it points in the predicted direction, as H1b posits. The same is the case for "I feel as being taken for a fool by the article", where *Blick* ($M = 1.9$, $SD = .93$) scored slightly higher than *NZZ* ($M = 1.8$, $SD = .93$). To summarize, I conclude that H7 can be regarded as confirmed.

To complement the self-report scale, an item asked for participants' agreement to the statement "This article is an example of good journalism". It was much higher for those who read the *NZZ* article ($M = 2.89$, $SD = 1.06$) than for those who read the *Blick* article ($M = 2$, $SD = .95$), $t(104) = 4.55$, $p < .001$, $d = .89$. These results are depicted in Figure 9.

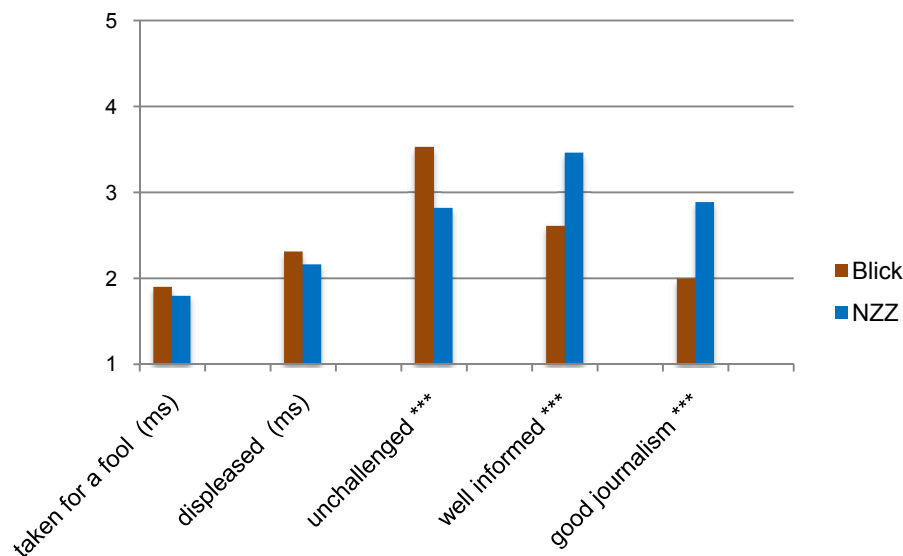


Figure 9: Mean comparisons of self-report items. Scale varies from 1 (low agreement) to 5 (high agreement). *** $p < .001$

Factor- and Reliability-Analysis of the Product Ratings. To further elaborate on the previous findings, an exploratory principal component analysis was conducted. The items of the multidimensional product rating measure were used as input variables. The aims were to reveal the structure of the product rating dimensions and to gain factors that could serve as more valid dependent measures for secondary ANOVAs for testing the hypothesized image effects.

For this purpose, direct oblimin rotation was chosen in order to allow the resulting factors to be correlated, because the concept of image implies inherent, higher order factors, each consisting of several correlated single factors. Data from all four treatment conditions were pooled, after a factor comparison procedure using condition as dummy variable indicated no differences in the structures obtained and therefore, justified pooling of data.

With two to six, the minimal number of variables loading on each factor is at the lower limit. Therefore, all four tests for interpretability of the resulting factor structure offered by the SPSS software were conducted.⁷ They all provide evidence that the resulting factor solution may be reasonably interpreted and used for further analyses.

Initially, two factors were found, consisting of six items that represent general quality, and two items that express the degree of complexity. As a scree test indicated no obvious count of factors to be extracted, the criterion of minimal eigenvalue was reduced to .9 in a second run. This way, a third factor was obtained that makes sense, as it still accounts for 11% of total variance explained and allows for a reasonable interpretation. This factor could be described as “relevance” and consists of two items that originally loaded on the general quality factor obtained by the initial two factor solution. Table 7 shows the three-factorial solution revealed from the pattern matrix.

The factor loadings are satisfying and all items can be precisely attributed to one of the three suggested components. Correlations between the factors are low to moderate with $r = .02$ for Quality and Complexity, $r = -.42$ for Quality and Relevance and $r = -.1$ for Complexity and Relevance.

⁷ First, the Kaiser-Meyer-Olkin measure of sampling adequacy reaches a value of .76, indicating a level between satisfactory and good. Second, a Bartlett's test of sphericity reaches significance at $p < .001$, indicating sufficiently correlating items. As a third positive indicator, the Anti-Image Correlation Matrix was found to numerate mostly small negative values. Also, the Measure of Sampling Adequacy reaches six values of around .8 and two values between .5 and .6, which also indicates that the pattern matrix may be reasonably interpreted.

Table 7
Rotated Factors and Item Loadings

Factor	Item	Factor			Initial Eigen-value	% of Total Variance (unrotated)	α	Corrected Item-Total Correlation
		1	2	3				
1	Quality				3.43	42.84	.83	
	sincere	.9	.05	-.35				.59
	truthful	.77	.12	-.24				.84
	sloppy ¹	.81	-.01	-.50				.76
	superficial ¹	.79	-.21	-.51				.79
2	Complexity				1.79	22.31	.78	
	comprehensible	.18	.92	-.18				.63
	complicated ¹	-.06	.91	-.11				.63
3	Relevance				.9	11.21	.66	
	thrilling	.31	.13	-.9				.5
	meaningful	.55	.16	-.83				.5

Note. ¹ Item is reverse coded.

Effects of Image on Product Rating Factors. Following the factor analysis, the dimensions extracted were used as dependent variables in a MANOVA procedure, forming a combined measure for image effects on product rating. Table 8 summarizes the results, which are analogous to the prior findings reported in Table 4, where the multidimensional scale items served as dependents. The MANOVA results indicate medium to large effects of the brand name cue and no effects of the layout cue and the brand name \times layout interaction. Thus, the prediction that image effects would also show on the factor analyzed product rating dimensions is confirmed and hypothesis H8 can be accepted. At the same time, this finding again supports the main hypothesis H1.

Table 8

Multivariate Analysis of Variance: Effects of Brand Image and Layout Cues on Factors Reflecting Product Rating

	<i>df</i>	<i>F</i>	η^2_G	<i>p</i>
Brand Image	3	9.98***	.19	< .001
Layout	3	.26	.01	.85
Brand Image \times Layout	3	.77	.02	.52

Note. As in all other analyses of variances, η^2_G was chosen as effect size measure.

Univariate ANOVAs were calculated subsequently, with the three dimensions extracted in the factor analysis as dependent variables. Table 9 summarizes the results. The order of effect sizes of the brand name cue on the product rating dimensions of quality, complexity and relevance corresponds to the percentage of variance explained by the respective factors extracted in the factor analysis. These results indicate that quality is the dimension that is most strongly affected by the brand image cue, followed closely by complexity. Relevance differs, too, but to a lesser degree. The layout cue as well as the interaction of brand name \times layout have no effect.

Table 9

Univariate ANOVAs for the Factorial Product Rating Dimensions, Including the two No-Layout Groups. Mean Factor Scores, F-Values and Generalized Eta Squares

Factor	<i>Blick</i> (<i>n</i> = 80)		<i>NZZ</i> (<i>n</i> = 80)							
	with layout	w/o layout	w/o layout	with layout	Brand Image		Layout		Brand Image × Layout	
	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>F</i>	η ² _G	<i>F</i>	η ² _G	<i>F</i>	η ² _G
Quality	-.43	-.17	.35	.34	12.58**	.09	.59	.004	48	.01
Complexity	.34	.32	-.17	-.39	10.2**	.08	.27	.002	.42	.003
Relevance	.34	.03	-.14	-.26	4.07*	.03	.27	.002	1.4	.01

Note. * $p < 0.05$. ** $p < .01$.

Descriptive Usage Statistics. From the total of 220 participants, a majority of 190 indicated to have at least one newspaper subscription. This indicates very good familiarity with newspaper media in the sample. Most subscribe to *Tages-Anzeiger* (46.3%), much less to *NZZ* (22.1%). 24.2% have a subscription of varying other, mostly local newspapers. 7.4% subscribe to *Blick*. Because the data were obtained from a sample consisting mostly of students, they support the assumption that highly educated people prefer *NZZ* over *Blick*. Also, the expectation that students prefer *20 Minuten* and *Tages-Anzeiger* over both other titles is confirmed.

Analogous results were obtained for reading frequencies, which are shown as proportions in Figure 10. It is a relevant finding that the title *20 Minuten*, a newspaper that is distributed freely and cannot be subscribed to, nevertheless scores highest on the usage scale. This tabloid newspaper is similar to *Blick* in terms of paper size, layout, language and selection of content.

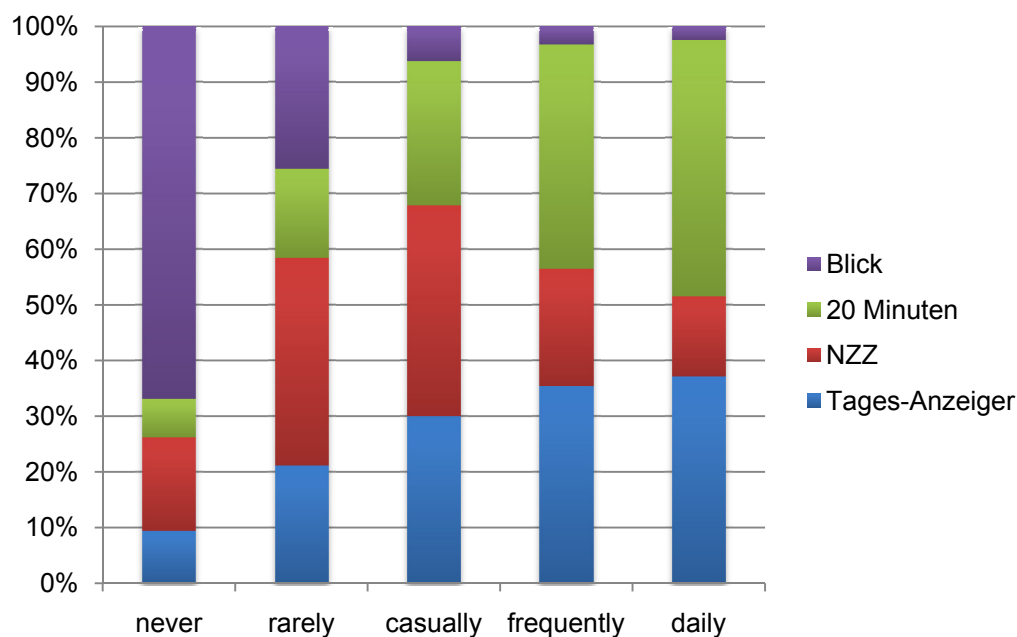


Figure 10: Proportions of reading frequencies between *NZZ*, *Blick* and the two distractors *Tages-Anzeiger* and *20 Minuten*.

Discussion

The results of this study clearly demonstrate large image effects on consumers' product evaluations. The main hypothesis that readers rate newspaper articles differently depending on manipulated brand images was strongly supported. Also, the related hypothesis that product ratings would be in line with the respective brand images was confirmed: Although the same article was presented to all participants, they rated it inferior if they believed it was copied from *Blick* rather than from *NZZ*.

Image effects were detected both by unidimensional as well as multidimensional product rating measures. Their high convergent validity supports the hypotheses that brand images influence consumers' product ratings on a holistic, general judgment level, but also on a more detailed level with several rating attributes.

My expectation that image effects are larger if both the brand names as well as the characteristic newspaper layouts are manipulated was also confirmed, as participants' product ratings tended more towards the respective brand images if both cues were available. This supports my prediction that brand perception depends to a large extent on the originality and salience of the stimuli.

In the present study, image effects were unaffected by involvement, knowledge and product usage. I assumed that these factors could explain the conditions in which image effects occur to some degree. However, the respective hypotheses about moderating effects were rejected. Also, only involvement had a significant main effect on product rating, but considerably less than image. Knowledge and usage both showed no significant main effects on product ratings, which is remarkable.

The finding that these factors, which are traditionally believed to be essential for consumers' judgments, did not moderate the influence of image, carries a most relevant implication: Image effects might be more influential for decision making processes than it was previously assumed. At this time however, I consider this as a preliminary notion which will need to be addressed in future studies.

The aim of finding image effects and the scenario implemented for this purpose are novel in the field of consumer psychology. Therefore, some exploratory research questions were investigated. For one, the hypothesis was confirmed that image effects can also be found on other than image attributes, because participants' self-reports

differed depending on whether they read the article from *Blick* or *NZZ*. This shows that images affect not only consumers' conscious expressions of product ratings, but also how brand images make them feel. This can be considered as an important finding which is worth of being further investigated.

A factor analysis was conducted in order to reveal the relevant product rating dimensions in the newspaper domain. Quality was found to be the strongest factor, followed by complexity and relevance. Quality explains 42.84% of the variance, complexity 22.31% and relevance 11.21%. Together, these components explain 76.36% of the variance, which allows concluding that the items used are valid for investigating newspaper product ratings. Subsequently, the hypothesis that image effects can be detected with these factors as dependent variables could be confirmed.

Usage rates were surveyed not only for *Blick* and *NZZ*, but also for the distractors *20 Minuten* and *Tages-Anzeiger*. The newspaper usage pattern confirmed my expectation that *20 Minuten* and *Tages-Anzeiger* are most popular amongst students. Remarkably, although a majority does not know *Blick* and *NZZ* well, participants obviously had no difficulties in rating them. Rather, they made very distinct expressions. This raises an interesting question: Do image effects mostly occur if consumers have little own, actual usage experience with a product? This will need to be addressed in a future study.

Manipulating only the image and not the product proved successful. By asking participants to rate concrete artifacts and not the respective manufacturers' brands, it was possible to obtain largely indirect characterizations of the brands' images. While this is not a completely unobtrusive image measure, a certain degree of unobtrusiveness lies within this indirect way of asking. The adaptation of this experimental procedure to consumer psychology will hopefully prove useful for future image research.

In light of this discussion, the finding that neither involvement, nor knowledge, nor usage were nearly as important for product ratings as brand image seems most interesting. If this gets confirmed, it would be an essential finding for consumer psychology and relate image effects to the domain of heuristic decision making and the concept of the "adaptive toolbox" which has gained much attention in recent years. In this rationale, images could be considered as energy saving devices for consumer decision making, just like stereotypes are for social cognition (Macrae, Milne &

Bodenhausen, 1994). Yet, this study was not designed to confirm null hypotheses, therefore power is not sufficient to interpret null findings. Subsequent research should address this issue.

The multidimensional product rating measure allows explaining which rating dimensions contribute how much to the image effect and in which direction. All of its items reached significance and medium to large effect sizes. The item “meaningful” only approached significance, but more importantly, showed large effect size ($p = .08$, $d = .34$). In detail, *NZZ* was rated as more relevant, sincere, meaningful, truthful and less sloppy and complicated. Meanwhile, *Blick* was rated as more comprehensible and less complicated.

Finally, the experimental design of this study comprises an indirect measure for brand images, because as predicted in hypothesis H1b, the manipulation of images caused product ratings to gravitate towards the respective manufacturers' brand images. This was also confirmed by the multivariate tests and allows for creating image profiles from product ratings. It can be assumed that participants really felt being engaged in a task of rating products, not brands, as several debriefing discussions and participants' free text comments suggested. Although not completely unobtrusive, I believe that this procedure is a convenient tool for revealing brand image profiles that contain not only explicit, but to some degree, also implicit consumer attitudes towards brands.

Considering Measures, Mere Exposure and Appearance

Measures. Three issues with the present study need to be discussed. Above all, the use of a single-item measure may be questionable in terms of reliability. Some evidence exists though, that when general, holistic ratings are of interest, single items may be sufficient. By definition, image-influenced product ratings are general, holistic ratings, which justifies the single-item approach. Furthermore, single items are less of a burden for the participant, enhancing test economy and power. One of several examples for these arguments is offered by Wanous, Reichers and Hudy (1997), who in their meta-analysis of studies asking for overall job satisfaction found single-item measures to be on par with scale measures. Later, Wanous and Hudy (2001) replicated this finding and extended it to another general concept: For teaching satisfaction, a

minimum reliability estimate of $r = .80$ for a single-item measure was found, reasonable for group level data. Considering this, single items might be plausible indicators for measuring image effects on consumers' product ratings, as the construct of image too involves general attitudes towards objects. Up-to-date support comes from other authors who have found single items to be of equal predictive validity as scales combining multiple items (e.g., Bergkvist & Rossiter, 2007; Rossiter, 2002), as long as general, simple and unambiguous concepts are being investigated.

Nevertheless, similar objections may be raised against the multidimensional product rating measure, as it consists of one item per dimension. Although in expert interviews all of the items were rated as being highly face valid and were acquired in thorough pretests using association tasks, the resulting measure is not validated. This is, of course, a problem inherent to most image research, as the applicable image dimensions vary among the various image domains. An often used approach to address this problem was offered by Aaker (1997), who suggests the use of a brand personality scale: a unified collection of image dimensions supposed to be relevant for all brands. The opinion supported in the present study contradicts this for several reasons. For one, because other than human personalities, brands are known to differ on an even broader range of dimensions, depending on product category, target group, market trends and other degrees of freedom. Further, Aaker's dimensions are questionable in terms of external validity (e.g. Azoulay & Kapferer, 2003). Still, a brand personality scale directly asks for ratings of the brand in question, which hinders efforts to hide the research scope from the participant and raises problems with social desirability that could distort the product ratings. To conclude, the measures have worked as expected. They seem to be viable, as the finding of significant, strong and predictable image effects suggests. Also, reliability and factor analyses indicate succinct validity.

Mere Exposure. An alternative explanation of why one or the other brand may be rated inferior is imposed by the mere exposure effect (Zajonc, 1968, 2001), which is widely regarded as an important factor for the psychology of brand perception and advertising (e.g., Janiszewski, 1993). It could be argued that a student sample is likely to form a better overall image of a newspaper that is supposed to be read more often by academics, because students are merely more exposed to it. But rather, the data gathered in the present research on product usage contradicts this otherwise plausible argument.

It is true that most participants do not know *Blick* very well. Only a few read it regularly, and the large part rarely ever touches it. But the same accounts for *NZZ*. The usage pattern shows that students preferably read *20 Minuten* and *Tages-Anzeiger*, which by far outperform the others. This contradicts the explanation of the mere exposure effect being the main reason for product rating differences.

Appearance. It is known that the mere appearance of a product's package can influence consumers' product ratings. As Hoegg and Alba (2007) have shown, such non-evaluative cues may have stronger effects than evaluative cues. For the domain of newspapers, it could be hypothesized that the shape of the product might have influenced the readers' quality perception. As *NZZ* is traditionally large sized and *Blick* is printed in the more compact tabloid format, appearance might have contributed to the rating differences – either because of the format itself is evaluative, or because the format mediates a specific image. Within the same rationale, it could be argued that the colors present in the stimuli influenced participants' ratings. Indeed, red is regarded as eliciting aversive reactions sometimes, and red is the color of the *Blick* brand logo in the stimulus. The same accounts for layout, as it has been shown that aesthetically designed products are perceived as superior (e.g., Tractinsky & Shoval-Katz, 2000). However, the image effect was also found in the two no-layout conditions. Therefore, it is unlikely that appearance was a main reason for the present results.

Directions for Further Research

Some interesting questions for future research evolve from the present study. Above all, it should be investigated whether involvement, knowledge and usage really do not moderate image effects. These factors are some of the usual suspects when it comes to explaining consumer decision making, which is why I have explored them in the current study. However, I must stress that I was not entirely surprised by this null finding. After all, my expectation that image would be very influential and potentially more important than other factors actually motivated me to conduct this study. However, my primary focus was to detect any image effects at all and to therefore establish a scenario that would allow for a causal attribution of these effects to the manipulation of image. To this avail, I conducted pretests which allowed for selecting

brand products with most salient and distinct images. Ironically, the success in detecting image effects could have caused failure in detecting moderating effects. All too salient images may have overruled other factors.

In any case, these considerations directly point at three issues that need to be addressed next in this research line. For one, power was too small to justify reasonable interpretation of the null findings regarding involvement and knowledge. Second, although they are face valid, the measures for involvement and knowledge were created ad-hoc, loosely following examples from related consumer research. Hence, their validity is questionable and should be improved. No such concerns pertain to the usage scale and the sociodemographic control variables. Third, and possibly most important: Now that image effects were successfully detected, future studies might select brands with less distinct images, in order to weight the effects of image, involvement and knowledge more equally.

Another implication that can be drawn from the present findings concerns product usage. It could be argued that product usage alone allows for no predictions as to how strongly a user actually is affected by image. Although theoretically, usage is expected to be positively correlated with both knowledge and brand preference (e.g., Desai & Hoyer, 2000), I suggest that its main effect on product rating as well as its interaction effect on image might rather be mediated by actual customer satisfaction. Therefore, usage might need to be controlled and instead, customer satisfaction be varied.

During the course of this study, I became increasingly aware of strong social desirability amongst students to despise *Blick* and to praise *NZZ*. Consequently, one could reasonably argue that consumers' product ratings depend more or less on image if the respective brand is under normative control. In the present study's sample, reading a populist newspaper is clearly disregarded. This is theoretically and empirically supported by the concepts of informational influence (Deutsch & Gerard, 1955) and conformity (e.g., Asch, 1951). Accordingly, individuals strive to be conforming to others. Image, as I define it, encompasses the attitudes of the "others" about an object, and therefore is of normative character. Following these arguments, visibility of products could be relevant, too. Products usually not consumed in public could be less affected by image effects. For example, it would have a negative impact on a student's

self presentation strategy, if she was reading *Blick* publicly in the cafeteria of the university. The negative image of *Blick* might impair her own image. Subsequent research should consider normative influence of social groups and product visibility as moderators for image effects.

To conclude, image effects strongly influence consumers' product ratings. These ratings tend towards the images of the associated brands. The more credible a product conveys the image of its associated brand, the more its rating will be affected by that image. Image effects appear not only on a holistic, general rating level, but also on a multidimensional, more detailed level. They affect not only consumers' product ratings, but also their self-reports. Newspaper images determine product ratings on the dimensions of quality, complexity and relevance, which are the relevant factors in this domain. No moderating effects of product usage, involvement and knowledge were found. Together, the present findings underline the potential of image effects and hold meaningful implications about their relations with moderating factors. It promises to be most worthwhile for subsequent research to investigate these relations.

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3 Image Effects: A Closer Look at Processes Involved

Running head: IMAGE EFFECTS: A CLOSER LOOK

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Abstract

The effects of image on consumer behavior are evident, but not fully understood. The goal of this study was therefore to investigate the processes involved in image effects. Using dual-process theories as theoretical framework, the effects of image, knowledge, involvement and customer satisfaction on consumers' product ratings were tested. In the experiment presented, brand image was manipulated, while all other product attributes remained unchanged. In a previous study, Fichter (2008) applied this scenario successfully to newspaper brands and found strong effects of image on product rating, but none of knowledge and involvement, possibly due to brand images that were too salient and favored heuristic over systematic processing. In the present study, telecommunication firms were chosen as holders of brand image. Product ratings in this domain were supposed to be influenced to more equal parts by image, knowledge and involvement. An online study with 790 undergraduate students as participants revealed main effects for all three factors and no significant interactions between them. Also, customer satisfaction accounted for a significant effect on product ratings, but less than each of image, involvement and knowledge alone. These results suggest that image effects may be largely independent of consumers' levels of involvement, knowledge and customer satisfaction.

Image Effects on Consumer Behavior: A Closer Look at Processes Involved

“Image is everything” – this statement by the famous tennis player André Agassi was spread out in the 1990s by camera manufacturer Canon in an advertising campaign. Three words so simple and true – the campaign soon turned into a self runner, and Agassi’s quote even became a popular proverb. Of course, the word “image” had double meaning in this case: not only as photographic picture, but as an encompassing mental impression of something or someone – in this case, the extraverted, rebellious celebrity of a popular athlete endorsing the Canon brand. Such brands are extremely valuable – and they largely consist of images. Especially in markets where products are more or less identical and hard to differentiate, consumers’ product ratings – and with them buying decisions – depend on the images that are associated with the manufacturers’ brands. These days, in some markets more money is spent on building and maintaining brand images than in product development (e.g., Coppetti, 2004). Therefore, insights into the image-phenomenon are needed.

Despite the recognized importance of image (e.g., Essig, De Russel & Semanakova, 2003; Glogger, 1999; Kotler, 2007; Kroeber-Riel & Weinberg, 2003; Trommsdorff, 2004), until now most image research has been applied market research, using correlative or quantitative methods. Such has proven its worth when descriptions of individual brands’ images are of interest. But compared to the large body of descriptive image studies, surprisingly little effort has been undertaken to explain image and its effects on consumer behavior. For the scope of consumer and business psychology, describing images and asking “how is it?” is no longer sufficient. Rather, the cognitive processes involved in image and its effects need to be investigated. We must ask: “Why is this?” On one side, such an understanding would be advantageous for company stakeholders in competitive markets. On the other side, consumers might regain some of their decisional sovereignty when told about the birds and the bees of modern image-based marketing efforts. The present study tries to address these issues.

In a prior study, Fichter (2008) demonstrated how image effects can be elicited experimentally in a consumer psychological context. A paradigm well known from the research on prejudice and stereotypes was used, where the content of a message remains unchanged, while the identity of the sender varies (e.g., Bertrand & Mullainathan, 2004;

Borsook and Becerra, 2005; Carpusor and Loges, 2006). Participants had to rate products – in this case, newspaper articles – that were exactly identical regarding text and topic, but different in layout and brand name cues. This manipulation of brand image proved successful and uncovered large image effects on the participants' product quality ratings. Image even surpassed other variables like involvement, knowledge and usage, all of which did not show significant effects.

The present study follows up to this and strives to demonstrate the effects of brand image on consumers' product ratings in better detail. It further seeks to embed the findings into the large body of consumer psychological research which has taken advantage of dual-process theories of information processing as theoretical framework for explaining consumers' decision making processes. Understanding the effects of image, involvement, knowledge and their interactions seems highly desirable.

This is true not only for consumer psychology, but also for close relevant domains like political psychology, where image effects are being recognized as most important and continue to attract growing attention from researchers during recent years (e.g., Newman, 1999, 2001; Shestopal et al., 2005; Yannas, 2002). It is widely accepted that success in polls and elections not only depends on voters' elaboration of the information available, but also on the political images of parties and politicians (e.g., Aidt, 2000; Bowler & Donovan, 2002; McDermott, 1997; Sanders, 2000). Richard Nixon, the 74th president of the USA, already knew this: "It is necessary for me to establish a winner image. Therefore, I have to beat somebody." Although he said that humorously, there is wisdom inherent. Nixon implies, knowledgeably or not, that in order to stand out, a certain image may be helpful – an image of a winner, in his case.

It is now necessary to define image, in order to make it operationalizable and to embed it theoretically. Trommsdorff and Becker (2005, translated by the author) describe image as a "holistic, stable, schematically simplified, valuated and more or less unified notion of an object, being shared by a group, a market segment or a subculture". Close to this, we define image as the *stereotypical sum of individual attitudes towards a single object*. It is important to stress that this definition conveys the two basic concepts of stereotypes and attitudes. For example: Brand images can be seen as stereotypes about brands (e.g., Maheswaran, 1994). Also, brand images contain the sum of individual attitudes towards an object (Trommsdorff, 2004). Accordingly, we propose

our own, short, but precise and well grounded definition of image for this study: *Image is the stereotypical sum of individual attitudes towards an object.*

Understanding Image Effects

Complementing the descriptive image research tradition, a growing number of authors contribute to a better understanding of the inner workings of image effects. For example, Burmann, Schaefer and Maloney (2008) recently investigated industry image and its impact on brand image. They were able to confirm that a company's brand image is indeed determined by the industry branch it operates in. In their study, the relation of company image and industry image was moderated by the involvement and knowledge which potential employees showed towards specific corporations. Besides the mere effect of image on human evaluations of things, this study highlights another important aspect: Image may be constituted by a variety of cue types – here, the industry associated with a firm was found to be a relevant image cue.

A wealth of studies identified effects of the manufacturing country as cue for product evaluations, which is well known as country-of-origin effect: Most people prefer French wine and German cars, and not the other way round (Trommsdorff, 2004; for an overview see Verlegh & Steenkamp, 1999). Dichter (1962) has come up first with this idea. He was suggesting that a country's image may have a “tremendous influence on the acceptance and success of products”.

In addition to the cue types, also the image bearers themselves may be of varying kind. As the previously cited quote from Richard Nixon makes obvious, not only manufacturers of consumer goods are in need of a good image, but politicians too. The same accounts for service providers in different domains: banks, insurances, telecommunications companies and also educational institutions. Adjacent to the abovementioned country-of-origin effects, Srikatanyoo and Gnoth (2002) consider country image as factor influencing students' evaluations of international educational institutions. Although this is a plausible assumption, empirical evidence has not yet been provided, showing one of the many open gaps in this field. Nevertheless, Srikatanyoo and Gnoth's hypothesis provides a good example of how the combination of different facets of image research may be fruitfully combined.

It should be pointed out that image shows manifold effects. It influences not only product ratings, but also consumers' self-reports of emotional states, as the preceding study has shown. Images even affect personal motivation: People are motivated to bring their self-concepts in accordance to the images of brands they consume, for which Dolich (1969) provided early evidence. He found that preferred brands were perceived to be more similar to self-concepts than those not preferred, which is one of the most influential single findings of image research to date. It marked the beginning of the research line of self-image congruence (e.g., Sirgy, 1986; Sirgy & Danes, 1982) and still continues to direct marketing efforts of companies worldwide.

To summarize, prior research has investigated the effects of country-of-origin or self-image congruence. But regarding the direct, distortive effects of brand images on consumers' product ratings, the processes involved are unknown. Research so far has only approximated this question. In a prior study, Fichter (2008) revealed the potential of such direct image effects, but found ambiguous results regarding moderating factors. We hope to fill in this gap with the present study.

Image Effects and Dual-Process Theories

Following our definition, images are closely related to the concepts of stereotypes and attitudes. In these research lines, dual-process theories of information processing are regarded as fundamental (e.g., Chaiken & Trope, 1999). They proved to be most useful for understanding stereotypical thinking (e.g., Brewer & Harasty Feinstein, 1999; Fiske, Lin & Neuberg, 1999) and attitude formation (e.g., Chen & Chaiken, 1999; Petty & Wegener, 1999). Therefore, it seems reasonable to assume that they will also have explanatory power regarding image effects. We lean against this argument and will subsequently draw our hypotheses from the background of dual-process theories.

Of these, the elaboration likelihood model (ELM; Petty & Cacioppo, 1986) and the heuristic systematic model (HSM; Chaiken, Liberman & Eagly, 1989) were the two most influential. Various similar theories have been proposed since (e.g., Fazio, 1990; Fiske & Neuberg, 1990; Strack, Werth & Deutsch, 2006; for a comparative overview, see Smith & DeCoster, 2000). For our purpose, we focus on the basic proposition which

is shared by all of these theories: There are two distinct modes of information processing; one can be described as automatic, unintentional, effortless, peripheral, heuristic and associative, the other as controlled, intentional, effortful, central, systematical and rule-based. The termini vary, but hold the same premise that information can be processed either at a low level of elaboration, which uses little cognitive resources, activates schemata and may lead to rather inaccurate results; or at a high level of elaboration, which does not rely on schemata, uses more resources and leads to more accurate results.

In the field of consumer psychology, several studies have successfully adopted dual-process theories. For example, it has been shown that consumers who process messages at a high level of elaboration are more influenced by negative than by positive messages (Block & Keller, 1995; Shiv et al., 2004) and that their attitudes are more persistent (Haugtvedt et al., 1994; Sengupta et al., 1997). Also, consumers' elaboration levels are higher if they are engaged in counterfactual thinking tasks (Krishnamurthy & Sivaraman, 2002), if persuasive arguments are inconsistent (Priester, Godek, Nayakankuppum & Park, 2004) with expectations (Yoon, 1997). If a vendor seems untrustworthy, his persuasive efforts elicit higher elaboration (Priester & Petty, 2003). All of these studies successfully considered level of elaboration as an important factor for consumers' judgments and their authors commonly operationalize it as a combination of involvement and knowledge. Against this background, it seems reasonable that dual-process theories will also help us to understand image effects.

In our rationale, it is important to stress that even cues like brand names or celebrity endorsers, which at first seem to be more peripheral cues, may lead to high elaboration. This is the case when a respective cue has high subjective relevance for the arguments provided, as for example endorser attractiveness (Shavitt, Swan, Lowrey & Wänke, 1994) or when it is perceived as being of diagnostic value (Aaker & Maheswaran, 1997).

Finding and Weighting Effects of Image, Involvement and Knowledge

In the prior study, the main focus was to elicit the isolated effect of brand images. For that purpose, two newspaper brands with very distinct images were chosen (*Blick* and *NZZ*). This was to assure that the experimental paradigm of exchanging the package while keeping the content identical would work in a consumer behavioral setting. This setting is analogous to similar experiments in the domain of stereotype research: The same message is sent out, but from different senders (e.g., Bertrand & Mullainathan, 2004; Borsook and Becerra, 2005; Carpusor and Loges, 2006). In the newspaper study, a large effect of image, but no moderating effects of involvement, knowledge and usage were found. Moreover, involvement showed only a small main effect, and knowledge and usage had no effect at all. We assume the reason for this is that the two brand images used were so distinct and salient that they superseded the influence of different levels of involvement and knowledge.

Therefore, the current study was redesigned to use images of less salience, in order to allow for proper examination of the three independent variables image, involvement and knowledge. At the same time, we attempted to balance the effect sizes of the independent variable, so that possible interactions could more easily be detected. To address this issue, we now chose the three major internet access service providers *Cablecom*, *Sunrise* and *Swisscom* as brands. We expected that their images would differ, but to a lesser degree than the images of the newspapers *Blick* and *NZZ* in the prior study. We consulted the brand monitoring study *Brand Asset Valuator* (BAV; Advico Young & Rubicam, 2007), which confirmed our expectation.

Also, in the discussion of the preceding study, the question was raised whether image effects only occur if consumers have no or little own experience with a product, as could be reasonably assumed from the newspaper usage data. By choosing the domain of internet access products, this issue was circumvented, because the vast majority of participants use products of these companies. We were thus able to control the factor usage and at the same time, survey customer satisfaction.

Hypotheses

Following these considerations, a first goal of this study was to replicate the finding of image effects and to measure their size in a domain with less distinct brand images:

H1a: Different brand images lead to different product quality ratings

H1b: Among less distinct brands, the image effect is smaller

Further, the assumption that higher elaboration of the information available leads to different attitudes towards a product was to be tested:

H2a: Different levels of involvement result in different product ratings

H2b: Different levels of knowledge result in different product ratings

In the newspaper study, no moderating effects of involvement, knowledge and usage were found. However, this can be explained against the theoretical background of dual-process theories. Following the proposition from the heuristic systematic model (HSM; Chaiken, Liberman & Eagly, 1989), heuristic processing may occur even under high elaboration conditions. In terms of the ELM (Petty & Cacioppo, 1986), recipients may use the same cue on both the peripheral as well as the central route to elaboration. In this regard, we propose that image may be used as heuristic cue even at high levels of involvement and knowledge and that consumers use the image cue both on the peripheral and the central route. Consequently, we predict that although there may be some interactions between image and the levels of involvement and knowledge, their effects will be rather small:

H3a: High involvement does not significantly decrease the image effect

H3b: High knowledge does not significantly decrease the image effect

Usage possibly had no effect in the newspaper study because it may have been mediated by customer satisfaction. Therefore, we now chose a product domain in which most participants are users. Instead of usage, we now focused on customer satisfaction, because if a majority of participants are users, it we expected that their actual customer satisfaction will influence the ratings in our experiment. For example, we know from own experience and also from the pretest interviews that many students are users of *Cablecom*, but they are partially unsatisfied. We hypothesized accordingly:

H4a: Customer satisfaction affects product ratings

We also expected that the main effect of customer satisfaction would be rather small, possibly smaller than image:

H4b: The effect of customer satisfaction is smaller than the effect of image

Method

Image Pretests

The images of the three brands serving as image bearers could be pretested using market research data from *Brand Asset Valuator* (BAV; Advico Young & Rubicam, 2007), a large-scale longitudinal brand image monitoring study. Image profile comparisons were conducted using this dataset⁸. This analysis confirmed the desired premise of moderately differing image profiles amongst the three market players.

To complement the analysis of *BAV* with an own sample and a different method, a focus group was conducted, consisting of 30 undergraduate students in a psychology class on consumer behavior. The results were analogous to the analysis of the *BAV*. Essentially, the discussion yielded the following: *Cablecom* was seen as brand with an unfavorable image, mostly due to insufficient customer support and an untrustworthy market appearance. *Sunrise* received fewer and also more moderate statements, indicating an image of low salience. It only reached significant attention on attributes like “cheap” and “young”, which is due to the low cost structure of this operator’s portfolio. The position of *Swisscom* as market leader was justified both by a high count of verbal expressions and contributions that mostly painted a positive image.

Participants

A total of 804 participants (427 women and 377 men, average age $M = 25.9$, $SD = 8.2$) took part in the study. They were recruited from the address books of the University of Zurich and the ETH Zurich. Participants were randomly assigned to the experimental conditions. There was no price to win, and no credit points were given. The latter is important because we wanted to keep a number of participants who have a low level of motivation for elaborating the cues to remain in the sample. If they were offered compensation for taking part, they might have felt obligated to invest more time and effort in filling out the survey, hence resulting in higher elaboration.

⁸ The authors wish to thank *Advico Young & Rubicam* for granting access to the *BAV* dataset.

Materials and Manipulation

Fictitious printed advertisements were used as stimuli. Their authenticity was regarded as essential for the credibility of the manipulation. To achieve this, they were elaborately produced in cooperation with an experienced graphic designer. First, existing ads of all three brands were collected. Second, their specific graphic and textual attributes were examined. From this, we created four synthetic ads that consisted of a seemingly well balanced set of cues. These ads contained a short text about the respective company, in which its values, corporate responsibilities, obligations towards society and environment as well as the entrepreneurial strategy were described. The purpose of this part of the text was to activate general associations, emotions and attitudes related to the domain of internet and communications service providers. Another paragraph described a typical product named “*myNet*”, which was explained in more detail regarding download bandwidth, bundled services and additional product benefits. These parts of the advertisements were identical across all experimental conditions.

The manipulation of images was achieved by exchanging logo, brand name and other corporate design elements of the advertisements. The textual content as well as a photograph of a likeable woman handing over a computer cable to the reader remained unchanged in all of the stimuli. In addition to the three branded conditions, a control condition was included by the creation of a no-name stimulus, containing neither a brand name nor a logo. This fourth stimulus was designed as to not resemble any of the existing brands, but otherwise contained all of the other essential elements.

The materials underwent two pretests for credibility. They were first presented to a class of 30 undergraduate psychology students who had to discuss the degree of realism of the artifacts. Second, the advertisements were sent out via e-mail to 10 uninformed students each, who were asked to comment the offer described in the advertisement. Afterwards, they were contacted personally and were asked whether they had raised any doubts about the originality of the materials. No doubts were expressed. All of the stimuli were credibly regarded as typical for the respective brands. The no-name stimulus showed a slight tendency to be regarded as being from *Cablecom*. This was probably due to the similar color scheme used.

The stimulus for the *Sunrise* condition is depicted in full size in Figure 11. A smaller footprint comparative of the four stimuli is shown in Figure 12. All four stimuli are shown in original size in the appendix. The survey was conducted in the German language; hence the stimuli contain German text. The survey can also be found in the appendix.

Liebe Leserin, Lieber Leser

Mit Innovation und Investition trägt Sunrise dazu bei, Menschen, Unternehmen, Organisationen und Kulturen kommunikativ zu verbinden. Ob im Beruf oder privat, das Internet ist aus unserem Alltag nicht mehr wegzudenken. Wir wollen für unsere Geschäftspartner und Freunde zuverlässig erreichbar sein und jederzeit schnell auf Informationen im Netz zugreifen können.

Auch dieses Jahr setzt Sunrise neue Standards. Urs Bühlmann, Head of Sales & Marketing: „Unser Entwicklungsteam ist sehr erfreut, myNet[®] vorstellen zu dürfen. Eine neue, anwenderfreundliche Lösung im Breitband-Internet Markt.“ Ausserdem werde man alles tun, um Funktionalität, Anspruch und Nutzeroptimierung weiter zu erhöhen, so Urs Bühlmann weiter.



Damit bietet die Sunrise, was Sie von einem modernen Internetanbieter erwarten: ein gutes Preis-Leistungs-Verhältnis und ein transparentes Gebührensystem. Das hohe Mass an Sicherheit sowie die Zusatznutzen der Service Packages überzeugen. Technisch weniger versierte Kunden profitieren von einem ausgezeichneten Support.

Schön, dass Sie auch im neuen Jahr sicher mit Sunrise online sind.

myNet[®]: Spass beim täglichen surfen!



myNet[®] – das heisst: Sie downloaden monatlich unlimitiert Daten mit hoher Geschwindigkeit. Sie nutzen bis zu 10 E-Mail-Adressen mit integriertem Spam-filter und verschicken 30 SMS gratis.

Zusätzlich ist ihr Computer mit einer Anti-Virus und Firewall-Software geschützt. Eine private Homepage und ein Online-Album (für Ihre Fotos, Videos und MP3-Dateien) ermöglichen es Ihnen, kreativ zu sein. Und dies alles für nur CHF 39.- pro Monat. Aufschaltgebühren und Modemmiete schenken wir Ihnen.

internet

Figure 11: Stimulus for the *Sunrise* condition, created by a graphic designer



Figure 12: The three branded stimuli and the no-name stimulus

Design

The experiment involved a $4 \times 2 \times 2$ between-subjects design. Brand image (*Cablecom / Sunrise / Swisscom / no-name*) was manipulated as independent variable. Knowledge (low / high) and involvement (low / high) were observed as quasi-experimental independent variables. Customer satisfaction was measured as control variable.

Measures

Involvement. The quasi-experimental independent variable of involvement was measured following a multidimensional operationalization proposed by Jain and Srinivasan (1990). Accordingly, involvement may be appropriately characterized on the five dimensions of relevance, pleasure, sign, riskimportance and riskprobability, using three items each. The complete scale of 15 involvement items is described in the appendix. The five factor solution proposed is based upon factor and reliability analyses of the following five prior involvement scales: Zaichkowsky's personal involvement inventory (PII, 1985), Laurent and Kapferer's involvement profile (IP, 1985), Vaughn's grid involvement subscale (1980), McQuarrie and Munson's revised personal involvement inventory (RPPI, 1987) and Higie and Feick's enduring involvement (IE, 1989). The total of 49 items are listed in the appendix.

We translated Jain and Srinivasan's (1990) scale from English to German, as this was the language used in the study. Then, a back-translation was conducted and compared to the original. We were assisted in this process by native English speakers. The items were presented on a 7-point scale, with unidirectional coding from 1 (low involvement) to 7 (high involvement). Example items are "products of internet service providers are meaningful to me / not meaningful to me" and "a badly chosen product would be a significant loss / would not be a significant loss".

Knowledge. As the ELM suggests, knowledge plays an important role in determining the level of elaboration. The valid operationalization of knowledge has been attempted in many studies (Alba & Hutchinson, 2000; Johnson & Russo, 1984; Raju, Lonial & Mangold, 1995; Ratchford, 2001). It is known that in technical domains, the users' uncertainty and risk perception are increased due to the higher complexity

inherent in such products (Huber, 1991). Also, the comparability of offerings is often decreased (Siguaw, Baker & Simpson, 2003). These considerations apply to the products we used as stimuli in the present study, due to the technical nature of internet access products.

Therefore, knowledge received special care in our survey, and a knowledge measure was applied. Participants completed a self-assessment scale consisting of six items. This scale concerned the general knowledge about the use of internet products, the ability to give a rating about such products and the knowledge of product-specific features and functions. Then, participants were asked to rate their expertise, compared to friends, average users and experts. The items used could not be readily taken from existing scales, as the latest validated German scale dates from 2001 (Richter, Naumann & Groeben, 2001). As the technical progress in the internet market has significantly evolved since then and the attributes of the product offerings underwent a paradigm shift (e.g., from dial-up to flat-rate), we regarded these items as being too old and no longer sufficiently valid.

Rather, we chose to construct an own measure, loosely inspired by some of the items from the Business Computer Self-Efficacy Scale (Stephens, 2006) in regards to the technical aspects. Intending a valid knowledge measure, we further consulted relevant studies of Bettman and Park (1980), Brucks (1985), Park, Mothersbaugh and Feick (1994), Punj and Hillyer (2004), Raju, Lonial and Mangold (1995) as well as Rao and Monroe (1988). The items were measured on a 7-point Likert scale, ranging from 1 (little knowledge) to 7 (high knowledge). Additionally, we added an “I don’t know” option, in order to reduce the dropout which had to be expected from this kind of items: Not all volunteer participants like being tested for how good their knowledge is, especially when their involvement or knowledge are low – again, we intended to keep these individuals in the sample.

Example items of the knowledge scale are “POP is the abbreviation for Post Office Protocol; the protocol by which an e-mail program retrieves e-mails from the mail server” and “Flat-rate is a service description which contains a monthly base fee and no fees for hours spent online or data traffic used”. The complete set of knowledge items is presented in the appendix.

Customer Satisfaction. This control variable was measured by a two step procedure. First, participants were asked to indicate the internet service provider they were currently using. This way, those who during randomization were assigned to the experimental condition which contained stimulus material from the same provider could be distinguished from those who were presented another provider than their own. Participants could therefore be assigned to the two groups “customer of experimental condition” and “non-customer of experimental condition”.

In a second step, participants from the “customer of experimental condition” group were asked about their satisfaction with their respective provider, on a 7-point item ranging from 1 (not satisfied) to 7 (completely satisfied). These ratings formed the control variable “customer satisfaction”.

Product Rating. The dependent variable product rating was measured on eight image dimensions consisting of three items each. For the construction of this scale, a comprehensive preliminary study was conducted. We paid close attention to finding a set of attributes that would be suited to describe the products as adequately as possible. It was important that the rating scale would be able to detect subtle differences between the brands, but at the same time would not take the participants too long to complete. If they would have been retained too long, participants with low involvement – and therefore, of particular interest for a study based on dual-process theories – would have been likely to have dropped out.

For creating the scale, we used the cognitive mapping technique. We followed a procedure proposed by Mandl et al. (2000). First, free listing tasks were completed by a student sample ($N = 28$). Then, structured interviews were conducted ($N = 20$) in order to reveal the network of the associations relevant to the domain of internet service providers. The interviewer guideline consisted of four questions which were derived from related studies on brand personality (Aaker, 1997; Aaker & Joachimsthaler, 2000).

The concept of brand personality has received controversial attention (e.g., Azoulay & Kapferer, 2003), essentially because human characteristics are deemed to be not fully applicable to product brands. Accordingly, specifics of the brands in question are also likely to be overlooked. As internet service providers’ brands were suspect to be affected by such constraints, we chose to let the brand personality items be followed by two open questions. They were asked in order to elicit free, associative answers.

Together, these procedures yielded a field of relevant dimensions which as far as possible contained all of the relevant attributes needed for the product ratings to be obtained in the main study.

Analyses of the interviews were then conducted by three independent raters, generating semantic maps of the topic area. To accomplish this, semantically similar answers were combined and accumulated to form histograms of relevant expressions. These were then sorted out in a collaborative review, following Mayring (2000). The review resulted in eight dimensions, which as well the corresponding items are listed in Table 10. The complete set of interview questions and answers can be found in the appendix.

Table 10

Dimensions and Items for Product Ratings of Internet Providers, Obtained in Pretests

Dimension	Items
Security (<i>Sicherheit</i>)	unreliable (<i>unzuverlässig</i>) dubious (<i>unseriös</i>) secure (<i>sicher</i>)
Threat (<i>Gefährdung</i>)	impersonal (<i>unpersönlich</i>) untruthful (<i>unehrlich</i>) cold (<i>kalt</i>)
Vitality (<i>Vitalität</i>)	dynamic (<i>dynamisch</i>) modern (<i>modern</i>) advanced (<i>fortschrittlich</i>)
Communication (<i>Kommunikation</i>)	conjunctive (<i>verbindend</i>) aiding communication (<i>kommunikationsfördernd</i>) bringing together (<i>zusammenführend</i>)
Essence (<i>Wesensart</i>)	technical (<i>technisch</i>) rational (<i>rational</i>) robust (<i>robust</i>)
Usefulness (<i>Nützlichkeit</i>)	informative (<i>informativ</i>) useful (<i>nützlich</i>) convenient (<i>praktisch</i>)
Transparency (<i>Transparenz</i>)	complicated (<i>kompliziert</i>) transparent (<i>transparent</i>) cluttered (<i>unübersichtlich</i>)
Obedience (<i>Abhängigkeit</i>)	indispensable (<i>unverzichtbar</i>) necessary (<i>notwendig</i>) inexpensive (<i>preiswert</i>)

Note: Items were presented on a 7-point scale ranging from 1 (do not agree) to 7 (fully agree). The words in this list were translated from the German originals which are set in parentheses.

Pretest and Manipulation Check

Prior to the main study, the survey was pretested for usability, acceptance, understandability and manipulation. Above all, participants had to know for sure that they were asked to rate the concrete products offered to them. Also, they should not have had any doubts about the originality and typicality of the advertisement presented. If these prerequisites would not have been met, rating differences would not have been attributable to the image manipulation.

A few of the participants expressed difficulties in assigning some of the items derived from the brand personality scales. These items were slightly revised to form the final scale as seen in Table 10. The stimuli were rated as being very authentic and typical for the market in question. Nevertheless, we included two items about typicality in the main survey. Also, the cover story succeeded in hiding the real purpose of the survey.

Procedure

Participants were asked to take part in a survey on advertisement reception. The questionnaire was implemented online, for which we used the Surveycenter software (Gräf & Batinic, 2007). In contrast to the prior study, which was programmed using the PHPSurveyor/Limesurvey (Schmitz, 2006) program, Surveycenter saves the participants answers after every single page of the survey. This allowed for keeping the data which had been collected from low-involvement participants up to the point where they had possibly dropped out. We reprogrammed the randomization routine, as the built in procedure would have resulted in unequal cell sizes, sacrificing statistical power.

The invitation to the survey was sent out by e-mail, containing a short description of the study. The text of this e-mail as well as the complete survey is included in the appendix. Upon entering the survey site, the cover story was repeated and instructions for how to fill in the survey were given.

On the next page, the stimulus was presented. The instruction was to read the advertisement, as it were to be judged in the following. We purposely did not ask for the demographical data at the beginning, again in order to retain as many low-involvers as possible. Acquiring their ratings was more important than acquiring their demographic data.

Following the advertisement stimulus, the product rating scale was presented. Then, participants were asked about typicality of the advertisement, as a manipulation check. The subsequent pages contained the involvement and knowledge scales, followed by questions about what internet service provider participants were using and whether or not they were satisfied customers or not. The last page surveyed demographic data and offered the possibility to ask questions and give comments. No doubts about the study's purpose or the manipulation were expressed here.

Results

The results section is divided as follows: First, the measures are checked for accuracy. This lays the ground for the multivariate analyses which were conducted to test the main hypotheses. Then, univariate analyses are reported that explain the multivariate results in more detail. Finally, some exploratory considerations will be made.

Participants were equally distributed across the four different brand image conditions by our online randomization routine. Dropout and missing values were comparable across conditions, resulting in cell sizes showing no significant differences ($\chi^2(3, 790) = 1.51, p = .68, \eta^2_G = .04$).

Assessments of Scale and Sampling Accuracy

Structure and Reliability of the Involvement Measure

Before using our involvement scale for multivariate analyses, we tested whether the scale was able to successfully reproduce the structure proposed by Jain and Srinivasan (1990). A principal component analysis with varimax rotation was calculated. We applied three different tests for interpretability of the resulting factor solution that are offered by the SPSS 15 software package. For one, the Kaiser-Meyer-Olkin measure of sampling adequacy reaches a value of .76, indicating that the unexplained variances of the scale's items are not correlated. Meanwhile, Bartlett's test of sphericity is highly significant and indicates sufficiently correlating items ($\chi^2(105, 574) = 3855.61, p < .001$). Also, the Anti-Image Correlation Matrix found mostly small negative values, further supporting interpretability. The results of these tests confirm that the factor solution identified may be reasonably interpreted. Table 11 lists the factors, item descriptions, item loadings and reliabilities.

Table 11

Factor- and Reliability Analysis of the Involvement Scale. The Dimensions and Items are Titled According to the Operationalization of Involvement as Proposed by Jain and Srinivasan (1990)

Involvement dimensions	Factor loadings					σ^2 (%)	r_{it}	α
	1	2	3	4	5			
Sign						16.82		.89
telling about me	.90						.84	
portraying me	.90						.85	
used to judge me	.89						.85	
Liking						15.35		.82
pleasurable		.87					.60	
appealing		.85					.59	
enjoyable		.74					.33	
Importance						15.07		.84
necessity			.85				.50	
importance			.83				.56	
usefulness			.81				.46	
Risk probability						14.59		.81
certain of purchase				.89			.60	
feeling of uncertainty				.85			.56	
is right purchase				.79			.30	
Risk cost						12.56		.69
bad purchase is a failure					.86		.47	
bad choice means loss					.80		.35	
bad purchase is upsetting					.67		.38	
Total % of variance explained						73.99		.74

Note. 1 = not at all, 7 = absolutely; KMO-coefficient = .76. Bartlett's test of sphericity $p < .001$. Translated from the German scale, which can be found in Figure 47 and Figure 48 in section 6.2.4 of the Appendix.

The total variance explained by our involvement scale reaches satisfying 74%. The goal of extracting five factors with three items loading on each dimension was met. Reliability for the grouped items per dimension is above the average value of $\alpha = .79$ which is often found in consumer psychological involvement studies (Peterson, 1994). The discriminatory power is high and item difficulty is average. The internal consistency of the scale is at a satisfactory level of $\alpha = .74$.

Following these primary analyses, we concluded that our adaptation of the involvement scale could be used with great confidence for the subsequent analyses using multivariate procedures. From the scale items, mean values were calculated and used as indicators for the individual involvement level of each participant.

Reliability of the Knowledge Measure

Reliability analysis of the knowledge scale resulted in a high value of $\alpha = .94$. As with the involvement measure, the high internal consistency lies above the level of $\alpha = .80$ for knowledge measures which is usually found in similar settings (Peterson, 1994). Also, the discriminatory power of the items is high and item difficulty is average. The mean score of knowledge for all participants is $M = 4.35$, $SD = 1.35$, where values of 1 and 7 mean low and high knowledge, respectively. Table 12 lists means, standard deviations and reliability scores for the knowledge scale.

Table 12

Reliability Analysis of the Knowledge Measure

Items	<i>M</i>	<i>SD</i>	<i>r_{it}</i>	α
Knowledge compared to friends	4.84	1.39	.67	
Knowledge compared to experts	2.92	1.65	.68	
Knowledge compared to average consumer	5.12	1.35	.63	
Knowledge about use	4.71	1.54	.72	
Ability to judge offers	4.26	1.62	.72	
Knowledge about product attributes	4.22	1.69	.77	
Scale total	4.35	1.35		.94

Note. 1 = very little, 7 = very high.

Distribution of Knowledge, Involvement and Customer Satisfaction

A further requirement for the between-subject analyses was near equal distribution of the quasi-experimental variables knowledge and involvement across the experimental conditions. This requirement was met for involvement ($F(2, 592) = .14, p = .87, \eta^2_G = .03$) as well as for knowledge ($F(2, 593) = 3.86, p = .12, \eta^2_G = .03$) and the control variable customer satisfaction ($F(2, 574) = 44.15, p = .04, \eta^2_G = .04$). Also, both Duncan and Scheffé post-hoc tests did not detect significant mean differences among the conditions.

Split of Knowledge and Involvement. In order to obtain two distinct levels (“high” and “low”) each for involvement and knowledge, we set tertiary splits at the levels of 33.33% and 66.66%, respectively. This procedure resulted in subgroups of participants which could be assigned to clearly different levels of involvement and knowledge. Groups differed significantly at involvement ($t(387, 422) = -41.11, p = .001$) and knowledge ($t(387, 401) = -44.29, p = .001$). The groups were distributed across involvement and knowledge levels as is shown in Table 13 and Table 14. The prerequisite of equal distribution is met for involvement ($\chi^2(2, 389) = .03, p = .98, \eta^2_G = .09$) as well as for knowledge ($\chi^2(2, 424) = .87, p = .65, \eta^2_G = .04$).

Table 13

Distribution of Involvement (low vs. high) Across the Experimental Conditions

Condition	Involvement		
	low	high	total
<i>Cablecom</i>	63	72	135
<i>Swisscom</i>	53	61	114
<i>Sunrise</i>	64	76	140
total	180	317	389

Note. Participants are equally distributed across conditions and levels of involvement ($\chi^2(2, 389) = .03, p = .98, \eta^2_G = .09$).

Table 14

Distribution of Knowledge (low vs. high) Across the Experimental Conditions

Condition	Knowledge		
	low	high	total
<i>Cablecom</i>	80	68	148
<i>Swisscom</i>	56	73	129
<i>Sunrise</i>	71	76	147
total	207	217	424

Note. Participants are equally distributed across conditions and levels of knowledge ($\chi^2(2, 424) .87, p = .65, \eta^2_G = .04$).

Structure and Reliability of the Dependent Measure

Product ratings were obtained using the scale of 24 items listed in Table 10. Factor analysis was performed using direct oblimin rotation, because we assumed the factors to be correlated and together forming a higher order construct – brand image, in this case (Bühner, 2006). Six factors were obtained, as can be seen in Table 15. The scores for Bartlett's test of sphericity ($\chi^2(176, 600) 3020.60, p = .001$) and the Kaiser-Meyer-Olkin measure of sampling adequacy (.88) assure the interpretability of this solution.

Factor analysis revealed two factors less than the eight proposed earlier, after reviewing the interviews. This is acceptable, not only because the calculatory criteria suggest a six factor solution (Eigenvalues > 1; significance of factor loadings), but also because the items from the two discarded domains were adequately assigned to the remaining factors.

Table 15

Factor- and Reliability Analysis of the Product Rating Scale

Dimensions and items	Factor loadings						σ^2 (%)	r_{it}	α
	1	2	3	4	5	6			
Innovation							27.50		.82
modern	.75							.64	
advanced	.63							.65	
dynamic	.59							.54	
aiding communication	.49							.63	
chatty	.48							.62	
Humanity							8.80		.81
impersonal*		.67						.35	
rational*		.64						.31	
technical*		.59						.30	
cold*		.50						.34	
complicated*		.41						.30	
Trust							6.45		.76
robust			.79					.48	
secure			.75					.42	
truthful			.62					.37	
Necessity							6.09		.80
necessary				.80				.61	
indispensable				.71				.51	
useful				.60				.64	
practical				.46				.54	
Comprehensibility							4.82		.46
transparent					-.64			.53	
confusing*					.63			.39	
informative					-.60			.43	
Dependability							4.45		.55
unreliable*						.67		.30	
dubious*						.57		.37	
conjunctive*						.40		.16	
good value						-.39		.36	
Total % of variance explained							58.17		

Note. Items marked with an asterisk have been reverse coded for reliability analysis. 1 = not at all, 7 = very much. Translated from the German scale, which can be found in Figure 43 and Figure 44 in section 6.2.4 of the Appendix.

Factor 1 explains 27.5% of the total variance. It contains high loadings of the items modern, advanced, dynamic, aiding communication and conjunctive. It was called “Innovation”, because it represents growth, constant change, pace and conjunctiveness of the brands in the telecommunications sector. Factor 2 reflects the impersonality, rationality and cold, complex technical facets inherent in this domain, which is why it was called “Humanity”. Other typical aspects are expressed in a third factor which we called “Trust”: robustness, security and truthfulness. Factor 4 was called “Necessity”, as it combines items of practicability, indispensability and usefulness, which are obviously relevant to describe the products in this domain. The same accounts for “Comprehensibility”, consisting of transparency, overview and informative. Finally, items like unreliable, dubious and conjunctive formed a sixth factor, “Dependability”.

Reliabilities in the product rating scale are satisfactory to good, with four values for Cronbach’s alpha between .76 and .82. The lower reliabilities for the factors comprehensibility and dependability with $\alpha = .46$ and $\alpha = .55$ respectively are regarded as acceptable for group level analyses (Kline, 1994, p. 53). For the subsequent group comparisons, six mean values were calculated from the items loading on the factors.

To conclude the preliminary analyses, a correlational analysis was conducted which shows that the factors of the product rating scale are not independent from each other, as can be seen in Table 16. Therefore, MANCOVA is appropriate for the main analyses, concerning the effects of brand image, involvement, knowledge and customer satisfaction on product ratings. This will be described in the following section.

Table 16

Correlations of the Product Rating Dimensions and the Dependent Variable Customer Satisfaction

		I	H	T	N	C	D	CS
Innovation	<i>r</i>	—						
Humanity		-.62	—					
Trust		.44**	-.03	—				
Necessity		.58**	-.09**	.48**	—			
Comprehensibility		.34**	.32**	.56**	.37**	—		
Dependability		.39**	.04	.47**	.35**	.35**	—	
Customer Satisfaction		.26**	.04	.19**	.03	.11*	.17**	—

Note. * $p \leq .05$, ** $p \leq .01$.

Multivariate Analysis and Tests of Hypotheses

The Effects of Image, Involvement, Knowledge and Customer Satisfaction

After the scales we used were shown to be reliable measures, they could be used to explore the effects of brand image, involvement, knowledge and customer satisfaction on product rating. For this purpose, we calculated a multivariate analysis of covariance (MANCOVA) with three factors (brand image, involvement and knowledge), the six product rating dimensions listed above in Table 15 as dependent variables and customer satisfaction as control variable. Table 17 summarizes the results. All of the independent variables show significant main effects. Also, the effect of the control variable reaches significance.

Regarding our hypotheses, we originally asked whether image would have an effect on consumers' judgments. In particular, would the different brands associated with the stimuli elicit different product ratings? As there is a significant main effect for brand image ($F(12, 780) = 2.79, p \leq .001, \eta^2_G = .07$), this can be confirmed. Therefore, H1a is accepted.

We further predicted that for less distinct brands, the image effect would be smaller. Comparing the effect sizes of the present study ($\eta^2_G = .07$) and the newspaper study ($\eta^2_G = .38$) confirms this prediction. Hence, H1b is also accepted.

Against the background of dual-process theories, we predicted that next to brand image, also level of involvement (H2a) and knowledge (H2b) would result in differing product ratings. Indeed, both involvement ($F(6, 780) = 4.74, p \leq .001, \eta^2_G = .11$) and knowledge ($F(6, 780) = 6.47, p \leq .001, \eta^2_G = .14$) showed significant main effects, leading us to accept both H2a and H2b. This confirms our theoretical assumptions that involvement and knowledge influence consumers' product ratings.

So far, we were able to demonstrate that brand image, knowledge and involvement each have effects on their own. But do they also interact with each other? Specifically, we hypothesized that higher involvement (H3a) and knowledge (H3b) would *not* effectively decrease the image effect. In fact, this is what we found. Neither the interaction of knowledge \times brand image nor the one between involvement \times brand image reaches significance, as can be seen in Table 17. Therefore, both H3a and H3b

are accepted. It should be stressed that interpreting these null findings is legitimate for several reasons: test power is high⁹; the MANCOVA result pattern matches our a priori hypotheses; the results are conforming to the findings from the prior study and furthermore, the findings can be explained against the theoretical background proposed (e.g., Martin, 2004). Therefore, it is unlikely that we have committed a type II-error.

In order to isolate the other independent variables from the effect of customer satisfaction, it was taken into account as control variable. As expected, it had a significant direct influence on product rating, therefore H4a is accepted. Further, our hypothesis that the effect of customer satisfaction on product rating would be smaller than the effect of image (H4b) is also accepted. This means that the images of the internet provider brands have more influence on the product ratings than the customers' own actual experiences with these products.

No hypotheses were made about the interactions of involvement \times knowledge and brand image \times knowledge \times involvement. None of them were significant.

⁹ A power analyses using the G*Power software package (Faul, Erdfelder, Lang & Buchner, 2007) revealed a test power of $1-\beta$ error probability $\geq .99$ for all interaction terms. Furthermore, G*Power revealed that all F values of the interaction terms are below the critical F values for falsely rejecting the alternative hypothesis.

Table 17

Multivariate Analysis of Covariance: Effects of Brand Image, Involvement, Knowledge and Customer Satisfaction on Product Ratings

Effects	Λ	F	df	p	η^2_G
<i>Main effects</i>					
Brand image (B)	.88	2.79	12	.00***	.07
Involvement (I)	.90	4.74	6	.00***	.11
Knowledge (K)	.86	6.47	6	.00***	.14
<i>Interactions</i>					
B \times K	.93	1.41	12	.16	.03
B \times I	.96	.81	12	.65	.02
K \times I	.98	.70	6	.65	.02
B \times K \times I	.96	.77	12	.68	.02
<i>Control variable</i>					
Customer satisfaction	.27	2.39	6	.03*	.06

Note. * $p \leq .05$; *** $p \leq .001$.

Univariate Analyses, Post-hoc Comparisons and Image Profiles

Univariate Analyses: Which Dimensions Cause the Multivariate Effects?

Subsequent to the multivariate tests of hypotheses, univariate ANCOVAs were conducted as follow-up analyses to the MANCOVA (Bray & Maxwell, 1982; Weinfurt, 2001). The following results provide further support for our main hypotheses and allow revealing how the product rating dimensions contribute to the multivariate results.

The manipulated factor brand image has significant effects on the dimensions of innovation ($F(2, 780) = 4.10, p \leq .05, \eta^2_G = .03$), necessity ($F(2, 780) = 4.74, p \leq .01, \eta^2_G = .04$) and humanity ($F(2, 780) = 3.04, p \leq .05, \eta^2_G = .02$). In other words: The mean product ratings for these three dimensions varied only because of the different brand images which the fictitious products were labeled with. This further supports H1a (Different brand images lead to different product quality ratings) and clarifies it in respect to which dimensions are affected in the surveyed domain.

Involvement showed a different pattern of influences, with significant effects on the dimensions of innovation ($F(1, 780) = 11.25, p \leq .001, \eta^2_G = .04$), comprehensibility ($F(1, 780) = 11.11, p \leq .001, \eta^2_G = .04$), trust ($F(1, 780) = 4.39, p \leq .05, \eta^2_G = .04$), necessity ($F(1, 780) = 24.06, p \leq .001, \eta^2_G = .09$) and dependability ($F(1, 780) = 8.56, p \leq .01, \eta^2_G = .03$), which is in line with H2a (Different levels of involvement result in differing product ratings).

Knowledge showed significant influence on the dimensions of innovation ($F(1, 780) = 33.25, p \leq .001, \eta^2_G = .12$), trust ($F(1, 780) = 4.20, p \leq .05, \eta^2_G = .04$), necessity ($F(1, 780) = 9.55, p \leq .01, \eta^2_G = .04$) and dependability ($F(1, 780) = 18.02, p \leq .001, \eta^2_G = .07$). A marginally significant effect was reached for comprehensibility ($F(1, 780) = 3.37, p \leq .07, \eta^2_G = .01$). These results also support H2b (Different levels of knowledge result in differing product ratings).

Also, the control variable customer satisfaction causes differences in product ratings, regarding innovation ($F(1, 780) = 8.90, p \leq .01, \eta^2_G = .04$), trust ($F(1, 780) = 8.19, p \leq .01, \eta^2_G = .03$), necessity ($F(1, 780) = 4.43, p \leq .05, \eta^2_G = .02$) and dependability ($F(1, 780) = 10.22, p \leq .01, \eta^2_G = .04$). All of the ANCOVA results are summarized in Table 18.

Table 18

Univariate Rests: Main Effects of Brand Image, Knowledge and Involvement on the Product Rating Dimensions (ANCOVAs)

Effects	<i>df</i>	<i>F</i>	<i>p</i>	η^2_G
<i>On innovation</i>				
Brand name	2	4.10	.02*	.03
Involvement	1	11.25	.00***	.04
Knowledge	1	33.25	.00***	.12
Customer satisfaction	1	8.90	.00***	.04
<i>On comprehensibility</i>				
Brand name	2	.13	.88	.00
Involvement	1	11.11	.00***	.04
Knowledge	1	3.37	.07	.01
Customer satisfaction	1	1.67	.20	.01
<i>On Trust</i>				
Brand name	2	1.49	.23	.01
Involvement	1	4.39	.04*	.04
Knowledge	1	4.20	.04*	.04
Customer satisfaction	1	8.19	.01**	.03
<i>On Necessity</i>				
Brand name	2	4.74	.01**	.04
Involvement	1	24.06	.00***	.09
Knowledge	1	9.55	.00***	.04
Customer satisfaction	1	4.43	.02*	.02
<i>On Humanity</i>				
Brand name	2	3.04	.05*	.02
Involvement	1	.07	.80	.00
Knowledge	1	.64	.43	.43
Customer satisfaction	1	.17	.68	.00
<i>On dependability</i>				
Brand name	2	1.40	.25	.01
Involvement	1	8.56	.00***	.03
Knowledge	1	18.02	.00***	.07
Customer satisfaction	1	10.22	.00***	.04

Note. * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Post-hoc Comparisons of Means and Image Profiles

Post-hoc comparisons of means were conducted in order to understand on which dimensions the brands differ and for which dimensions the different levels of knowledge and involvement are relevant. Additionally, image profiles were constructed by calculating univariate ANOVAs with the product rating items as dependent variables and the brands as factor. Both procedures confirmed the main findings and allow for more fine grained insights into the images of the three brands. Additionally, they show that the product rating measure we created for this study offers an advanced procedure for assessing brand image profiles as unobtrusively as possible, by not directly asking participants for the brand images.

Comparisons of Means. In order to understand on which dimensions the brand images differ and for which dimensions the different levels of knowledge and involvement are relevant, post-hoc comparisons of means were conducted. Regarding the manipulated brand images, the fictitious product *myNet* gets rated as being more innovative if participants believed it was from *Cablecom* than from *Swisscom* ($p \leq .01$, $d = .61$) or *Sunrise* ($p \leq .05$, $d = .77$). Also, *myNet* yields lower ratings on necessity for *Swisscom* than for *Cablecom* ($p \leq .01$, $d = .56$) and for *Sunrise* ($p \leq .01$, $d = .56$). Concerning humanity, it is *Sunrise* who wins compared to *Swisscom* ($p \leq .05$, $d = .61$) and marginally compared to *Cablecom* ($p = .08$, $d = .77$). All post-hoc mean comparisons related to brand image are summarized in Table 19. Overall, the product is rated as average on all dimensions, in any condition ($M_{min} = 3.81$, $M_{max} = 5.03$ on a 7-point scale). This was expected and is proof for the high plausibility of the stimuli, as it was the goal to create a prototypical, average product.

Nevertheless, it should be highlighted that *Swisscom* polarized our participants more than the two other brands, which can be concluded from its high variance. Further, *Swisscom* gets lower ratings on any of the dimensions with significant differences. Also, *Cablecom* gets better ratings for the attributes modern, dynamic and advanced (dimension of innovation) and as of higher utility and more practical (dimension of necessity). Meanwhile, in the *Sunrise* condition, *myNet* is rated as less complicated, technical and impersonal (dimension of humanity) than in the two other conditions.

Table 19

Post-hoc Comparison of Means of Internet Provider Brand Images on the Product Rating Dimensions.

Dimensions	Internet provider brand		
	Cablecom (<i>n</i> = 96)	Swisscom (<i>n</i> = 74)	Sunrise (<i>n</i> = 90)
Innovation			
<i>M</i>	4.52 _a	3.91 _b	4.14 _b
<i>SD</i>	.13	.19	.13
Comprehensibility			
<i>M</i>	4.19 _b	4.13 _b	4.26 _a
<i>SD</i>	.15	.22	.15
Trust			
<i>M</i>	3.89 _b	3.86 _b	4.21 _a
<i>SD</i>	.14	.22	.15
Necessity			
<i>M</i>	3.56 _b	2.82 _a	3.52 _b
<i>SD</i>	.14	.21	.14
Humanity			
<i>M</i>	3.81 _c	3.59 _b	4.13 _a
<i>SD</i>	.13	.19	.13
Dependability			
<i>M</i>	5.03 _a	4.69 _b	4.76 _c
<i>SD</i>	.14	.21	.14
Total			
<i>M</i>	4.17 _a	3.83 _b	4.17 _a
<i>SD</i>	.14	.21	.14

Note. Means in the same row that do not share subscripts differ at $p \leq .05$. The no-name product has no real image and is therefore not compared.

Regarding involvement, the following results stand out: participants with high involvement rate the product significantly higher on the dimensions of innovation ($p \leq .001$, $d = .83$), comprehensibility ($p \leq .001$, $d = .74$), trust ($p \leq .05$, $d = .74$), necessity ($p \leq .001$, $d = .78$) and dependability ($p \leq .001$, $d = .78$). Again, the product gets average ratings overall ($M_{min} = 3.87$, $M_{max} = 5.10$ on a 7-point scale). It is notable that higher ratings are consistently given from participants with high involvement. This means that these individuals see the prototypical internet brand as more innovative, comprehensible, trustworthy, necessary and dependable. On the dimension of humanity, the difference is still significant, although the effect is smaller than on the other dimensions (Cohen's $d = .33$).

Concerning knowledge, we found a pattern similar to involvement, but in the opposite direction. Participants with high knowledge rated the product significantly lower on the dimensions of innovation ($p \leq .001$, $d = .83$), trust ($p \leq .05$, $d = .71$), necessity ($p \leq .001$, $d = .76$), dependability ($p \leq .001$, $d = .77$) and marginally on understandability ($p = .07$, $d = .72$). As with brand image and involvement, also the different levels of knowledge vary around an average midpoint ($M_{min} = 3.01$, $M_{max} = 5.22$ on a 7-point scale). Table 20 summarizes the post-hoc comparisons of means.

Table 20

Post-hoc Comparison of Means of Involvement and Knowledge on the Product Rating Dimensions.

Dimensions	Involvement			Knowledge		
	low (<i>n</i> = 112)	high (<i>n</i> = 148)	<i>p</i>	low (<i>n</i> = 118)	high (<i>n</i> = 142)	<i>p</i>
Innovation						
<i>M</i>	3.90	4.48	≤ .001	4.69	3.69	≤ .001
<i>SD</i>	.13	.11		.11	.13	
Comprehensibility						
<i>M</i>	3.87	4.52	≤ .001	4.38	4.01	≤ .001
<i>SD</i>	.15	.12		.13	.15	
Trust						
<i>M</i>	3.78	4.19	≤ .001	4.19	3.78	≤ .001
<i>SD</i>	.15	.12		.13	.15	
Necessity						
<i>M</i>	2.85	3.75	≤ .001	3.58	3.01	≤ .001
<i>SD</i>	.14	.12		.12	.14	
Humanity						
<i>M</i>	3.83	3.87	≤ .01	3.78	3.92	≤ .001
<i>SD</i>	.13	.11		.11	.13	
Dependability						
<i>M</i>	4.56	5.10	≤ .001	5.22	4.43	≤ .001
<i>SD</i>	.14	.12		.12	.14	

Note. differ at $p \leq .05$. The no-name product has no real image and is therefore not compared.

Image Profiles. After the hypotheses tests and detailed analyses had been conducted, univariate ANOVAs were calculated with the product rating items as dependent variables and the brands as factor, with the no-name group included. This procedure revealed image profiles – a detailed descriptive of the brands' characteristics (Trommsdorff, 1975; Trommsdorff & Becker, 2005). Although the multivariate analyses we used for hypothesis testing are more reliable, univariate comparisons are a tradition in image research and provide some interesting insights into the brands' personalities.

Figure 13 shows a visual representation of these profiles. The most salient results will be outlined in the following.

For one, *Swisscom* gets rated as more informative than the others ($F(3, 743) = 2.70, p = .05, \eta^2_G = .01$), but also as less indispensable ($F(3, 768) = 5.40, p = .01, \eta^2_G = .01$). *Cablecom* is seen as more untruthful than its competitors ($F(3, 657) = 2.70, p = .05, \eta^2_G = .02$). *Sunrise* as well as the no-name condition appear to be more practical than *Swisscom* ($F(3, 755) = 2.95, p = .05, \eta^2_G = .02$). Regarding the rationality item, *Sunrise* yields lower ratings than *Swisscom* and no-name ($F(3, 669) = 2.75, p = .05, \eta^2_G = .02$). *Cablecom* as well as *Swisscom* are rated as less technical than *Sunrise* and the no-name condition ($F(3, 764) = 3.10, p = .05, \eta^2_G = .02$). Then, *Sunrise* and also *Cablecom* are perceived as more dubious than *Swisscom* ($F(3, 754) = 3.94, p = .01, \eta^2_G = .02$). In return, *Swisscom* gets better ratings from participants as a good value ($F(3, 692) = 3.63, p = .02, \eta^2_G = .02$).

All of these findings are plausible and make sense from the brand personality viewpoint of market insiders. But most importantly, the notion of the image profiles obtained as making sense is indicative for the satisfying validity of the product rating scale used in the survey.

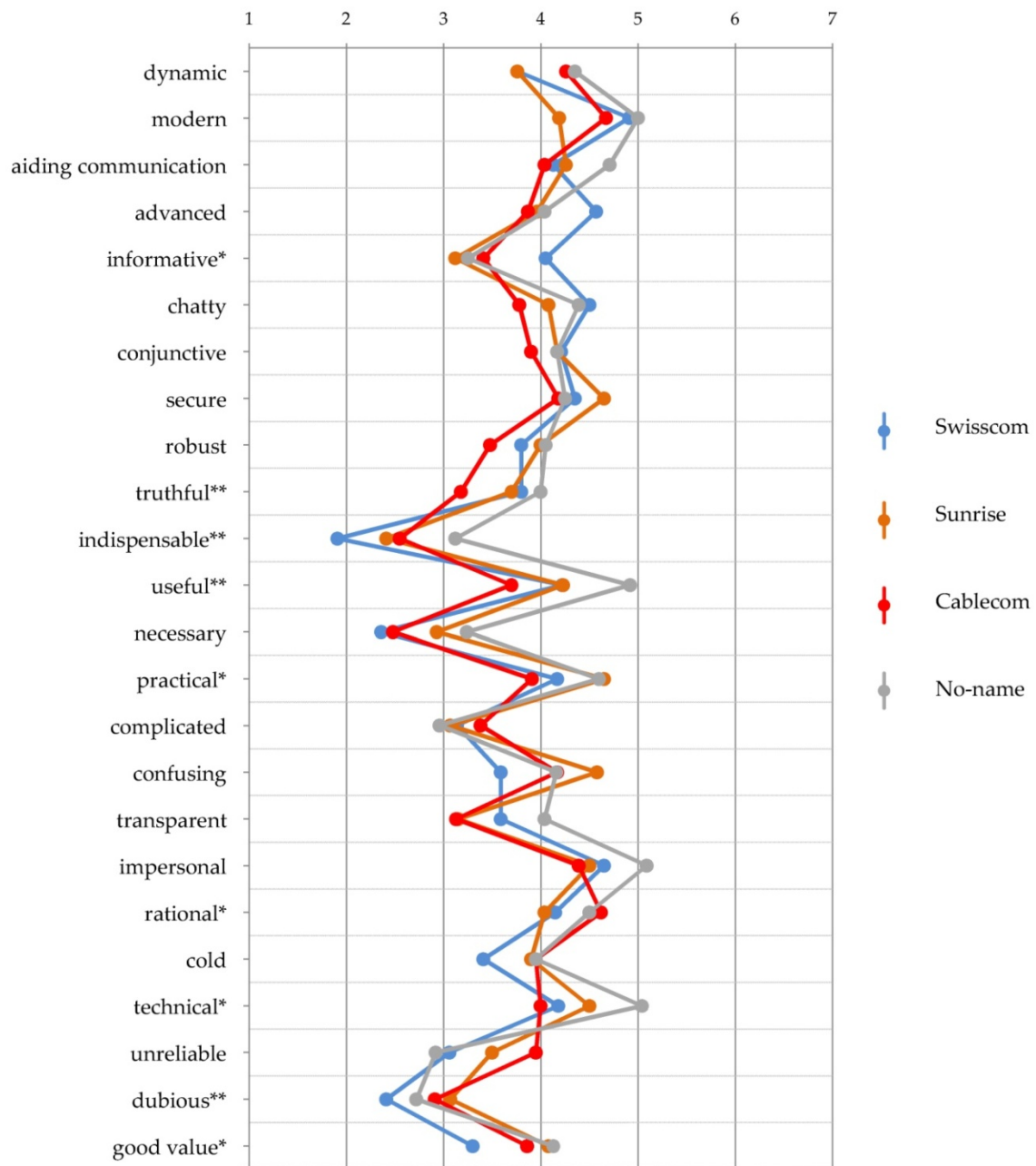


Figure 13: Image profiles for the three brands *Cablecom*, *Swisscom*, *Sunrise* and the control group.

Note. Univariate ANOVAs, $*p \leq .05$, $**p \leq .01$. The image items have been translated from the original German questionnaire; see section 6.2.4 in the appendix for the original words. Scale ranges from 1 (not at all) to 7 (very much).

Analogous to profiling the image on an item per item basis, we plotted the brand ratings on a radar chart, using the six image dimensions extracted in the factor analysis detailed above. This offers an alternative approach for the visual assessment of the data from the post-hoc comparison of means in Table 19. Figure 14 illustrates where the three brands are positioned in the market.

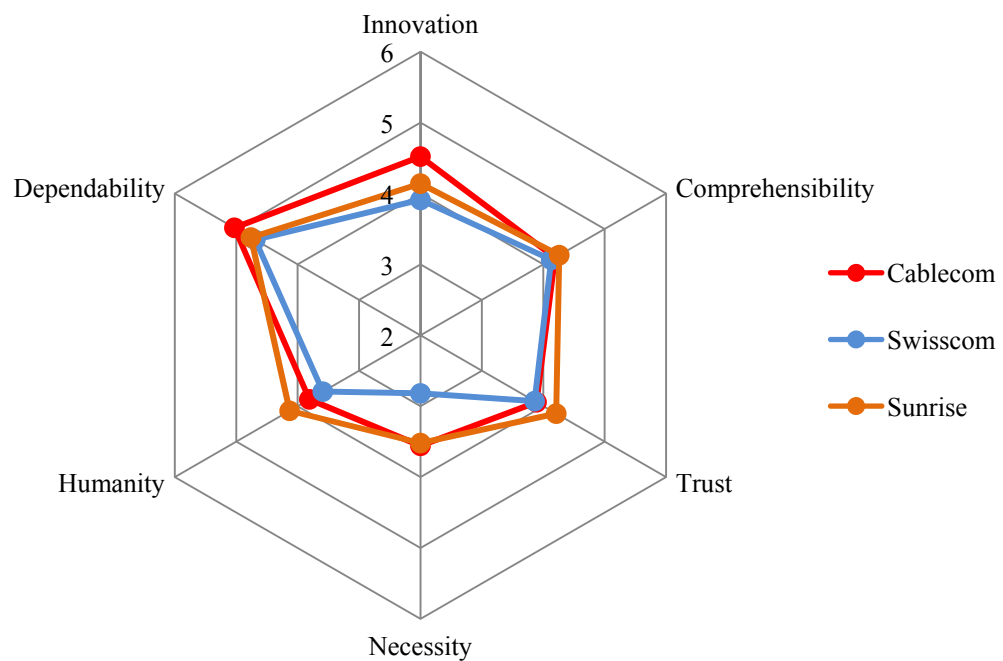


Figure 14: Radar chart of the brands' ratings on the factor analyzed product rating dimensions for an accessible visual overview of where the three internet provider brands are positioned in the market.

Discussion

The present study confirms that there are direct effects of brand image on consumers' product ratings. If the very same product is presented under a different brand name, participants' judgments about the product turn out differently. Because in our experiment, the product itself remained unchanged, the differences in product ratings amongst the different brand conditions can be explained as pure image effects.

Next to the effects of image, we identified parallel effects of knowledge and involvement. These codetermine consumers' product ratings. Different levels of knowledge or involvement lead consumers to judge identical products differently. This is in line with previous research and supports theoretical implications of dual-process theories. These predict that consumers process persuasive information differently, depending on their levels of elaboration.

The third relevant result of the present study is that different levels of knowledge and involvement were not found to substantially moderate the effect of image. This is in line with our respective hypotheses: We predicted that images would affect consumers' decision processes, no matter how high the elaboration.

While we had clear expectations about the direct effects of image, knowledge and involvement respectively, we were not quite sure whether our prediction that image effects would not be significantly moderated by knowledge and involvement would come true. However, it did.

Customer satisfaction was found to influence product ratings as predicted. Moreover, our daring expectation was confirmed that the effect of image on consumers' product ratings is larger than the effect of customer satisfaction. In other words, the image of a products' brand is more important for the consumers' product quality rating than her own personal experience – at least for the domain of internet service providers. This is as a most interesting finding and its importance for further image research should be underlined.

The finding that image was independent from involvement and knowledge is relevant and needs consideration. Though it may seem counterintuitive at first, it may well be understood against the background of dual-process theories. For example, in terms of the ELM (Petty & Cacioppo, 1986), there are two routes to persuasion.

Recipients may use the same cue on both the peripheral as well as on the central route. Considering this, some participants are likely to have used image cues on the peripheral route, others on the central route, both leading to the same destination. In terms of the HSM (Chaiken, Liberman & Eagly, 1989), some may have processed the persuasive arguments inherent to images heuristically, others systematically, both with the result of analogously distorted product ratings.

Regarding dual-process theories, this theoretical explanation is empirically well supported, for instance by Chaiken and Maheswaran (1994), who state that “heuristic processing can bias systematic processing.” Two persons at the opposite ends of the elaboration continuum may therefore get to the same conclusions, even though they are processing the persuasive information differently: as heuristics or arguments. Consequently, image effects too are therefore not bound to a specific mode of information processing. We believe this is what has happened here, and think that the possibility of image often taking the central route to persuasion should be emphasized in the future.

Following Rucker and Petty (2006), we believe it is evident that the image of an internet provider can act as either a heuristic cue or as an argument. This conception is analogous to findings on heuristic decision making, where cognitive short cuts have been shown to prevail, even when all necessary information is available (e.g., Gigerenzer & Todd, 1999). We propose that images should be conceived as such cognitive short cuts, too. Looking back at what we suggested in the introduction, occurrences of these image-based short cuts can be seen not only in consumers’ decisions, but also in other domains, for instance in political decision making.

The finding that image was more important than customer satisfaction needs consideration. Of course, it would have been surprising only if we were still adhering to the homo oeconomicus paradigm. But nowadays, it can be explained. Similar effects have been reported from research on stereotypes, where individuals were found to prefer being conform to group meaning over their own experience. The concepts of informational influence (Deutsch & Gerard 1955) and more generally, conformity (e.g., Asch 1951) posit that people will judge conforming to others’ judgments. Image, as we defined it, encompasses the attitudes of the “others” about an object, and therefore is of normative character. This argumentation highlights the theoretical link between

stereotypes and images. The present study provides empirical evidence for the analogy of images and stereotypes.

The finding that brand image is more important than own experience is pushed by subjective impressions of the interviewers who conducted the pretest interviews. They stated that the brands were characterized rather precisely and similarly across participants, apparently independent of one's own experiences with the brands and the attitudes towards them. To provide an example: Most interviewees did make clear statements about supposedly lousy customer service of *Cablecom*, or in the prior study, about the newspaper *Blick* as being politically rather right-wing. Such statements were made independent of own experience. Rather, the interviewers formed the impression that the interviewees had internalized what they believed to be the public meaning. From the present study, drawing such conclusions is speculative and they should not be generalized. But it surely raises interesting research questions for follow-up studies in the field of image research.

Advancements Over the Preceding Study

Our considerations about the image phenomenon and its localization next to other variables known to influence consumer behavior, like knowledge and involvement, are built on more solid grounds now. In the preceding study (Fichter, 2008), the main achievement was to find a way of manipulating image at all and to identify image effects that could be causally attributed to this manipulation. Next to replicating this in another domain, we have now pulled the mesh more closely around the formation of image effects.

Foremost, by explicitly using dual-process theories as theoretical background, we were able to declare our hypotheses precisely and to direct our questions in clear directions: Would image again override the effects of involvement and knowledge? If not, would these two variables only just stand alone or would they interact with image? Also, after we were able to answer these questions, the background of dual-process theories further enabled us to find a possible explanation why image effects persist even when involvement and knowledge are high, namely because participants may use image cues on the central route to persuasion.

In addition, the preceding study was exploratory and generating hypotheses. Therefore, measures were partly self created, following piloting semantic mapping procedures. While these measures were capable of capturing a wide range of possible effects, they were not well suited for narrowing them down. This has been addressed here. We constructed a product rating scale derived from the brand personality scale introduced by Aaker (1997), which we adopted and complemented according to the critique on brand personality scales by Azoulay and Kapferer (2003). The scale proved to be a reliable measure, and so did the scales for involvement, knowledge and customer satisfaction.

Also, less prominent brands were chosen as stimuli. They were selected to be less polarizing than in the prior study, where two very salient brands were assessed which may have overrun all other variables but image. This was successfully circumvented now: All three independent variables elicited effects of comparable sizes.

Further, in contrast to newspapers, which are often read in public settings, consumption of internet providers' services is not publicly visible. Visibility might mediate image effects through normative or identity signaling processes, because the influence of reference groups is higher for products consumed publicly (e.g., Bearden & Etzel 1982; Tian, Bearden & Hunter, 2001). Also, consumers have been shown to choose more variety for brand preferences in public than in private settings (Ratner & Kahn, 2002). Furthermore, the need for identity signaling varies among product domains (Berger & Heath, 2007). Such possible distractions have been circumvented in the current study by using a product which is consumed in complete privacy.

Open Questions

Finding main effects in ANOVA designs is easier than finding interactions, especially when the factors are of different effect sizes or limited variance. On the one hand, we succeeded in leveling the effect sizes for each of the factors. On the other hand, regarding variance, it can be argued that an interaction between the elaboration variables and image might have persisted, but that it would only have shown in an experimental setting where involvement and knowledge had been of larger variance. A slight trend towards an interaction was indeed present in our data. Also, it is evident that

involvement is per se limited in an online study, especially when using advertisements as stimuli, which are found to be generally processed at lower involvement levels (Rucker & Petty, 2006).

At least with regards to knowledge, we expanded our sample to include not only psychology undergraduates, but also majors of nature science, because we found the latter to have very high knowledge about the products used as stimuli. Nevertheless, an experimental manipulation instead of quasi-experimental observation might have enlarged variance even more. This might be achieved by manipulating the amount and quality of information prior to the persuasion process or during product rating. Therefore, future studies should address this issue.

Further research should also consider that other variables than knowledge, involvement and customer satisfaction may moderate the effects of image. When comparing with the effects which have been elicited by the stimulus brands *Blick* and *NZZ* in the prior study, it is noticeable that internet provider brands' effects are smaller. We think this might be due to different attitude strengths. Participants are supposed to have collected much more information about *Blick* and *NZZ* over time than about *Swisscom*, *Sunrise* and *Cablecom*. Also, the information usually reported about the two newspaper brands is believed to form more distinct images. As such, related attitudes may be suspect to be more easily retrieved. Therefore, attitude strength and ease of retrieval might prove fruitful for further investigations (Fazio, 1995; Krosnick & Petty, 1995).

Also, demographic and person variables have not been looked at yet. In the context of elaboration, one could reasonably argue that need for cognition (Cacioppo & Petty, 1982) might determine the degree of elaboration. One of the first to discuss possible moderating influences of individual differences in information processing in this context was Zhang (1996). In his study, he found evidence for such moderating functions in the domain of country of origin-effects, which may be regarded as a variant of image effects.

Image Victims?

Are consumers victims of images? We believe that people are under the influence of image cues every day, in many different decisional situations. A lot of money is paid for the enhancement of images of companies, politicians and organizations of all kinds – or, as we are tempted to say: A lot of knowledge and involvement is spent on image. One could therefore easily indict image-influenced persuasive messages as a spell for society. But this is just the one side. On the other side, people profit from using images as cues. We defined images as the sum of attitudes towards objects, formed over time by multiple fuzzy impressions. As such, they cannot possibly be accurate under all circumstances. Yet, they don't need to be. They serve well as peripheral cues, when not much time, knowledge and effort are to be spent. Following Gigerenzer and Todd (1999), we see the image phenomenon as a fast and frugal heuristic. Consequently, Agassi's quote from the introduction might need an update: Image may not be everything, but it certainly is *everywhere*.

To conclude, we found further evidence that image influences consumers' judgments. We argue that image should be understood as a factor on its own. As for now, it seems to be rather independent from other factors that are usually used to explain consumer behavior, like knowledge or involvement. The present study has shown that image can be even more important for consumers' product ratings than their own, actual customer satisfaction. Future research on the image phenomenon promises to reveal even more interesting insights into how the concept of image relates to other relevant concepts and the processes involved in consumer decision making. These insights would be useful not only for consumer psychologists, but also for the two "market opponents": manufacturer and customer.

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4 General Discussion

In this last chapter, I will summarize the aims of my dissertation, the conceptualization and theoretical considerations, and the results of the studies conducted. Then, I will discuss the extent to which these results contribute to answering the research questions about image effects. By relating my findings to the theoretical framework, I will propose explanations for image effects and at the same time point at open questions. Finally, I will suggest directions for further research that promise to be fruitful for closing some open gaps and to leverage knowledge about image effects.

4.1 Summary of Research Objectives

The purpose of this dissertation was to leverage the understanding of image and its effects on individuals. In the introduction, I declared that image is a most relevant factor in consumer decision making. Obviously, image is considered a crucial variable in today's economy. Accordingly, it has received widespread attention in market research as a descriptive measure for characterizing brands. However, the psychological foundations of images from an individual, consumer centric perspective have only received marginal attention. I wanted to adjust this imbalance and add to consumer centric image research. These considerations led to my research questions: Can images lead consumers to different judgments? If yes – how can such image effects be explained?

With questions about image effects and their explanations leading my mind, I set up four steps that together constitute my dissertation. First, I recognized the need to consolidate the different historical conceptions of image, in order to arrive at an up-to-date definition of image: in short, the stereotypical sum of attitudes towards an object. Second, I had to delineate a theoretical framework suitable for psychological image research, into which I could embed my research questions and from which I could draw reasonable hypotheses that could be empirically assessed.

After these fundamental preliminary steps had been taken, the stage was set for the two main experimental studies. In the third step, a scenario was established that allowed the identification of pure and causal image effects in consumer decision making. The main purpose here was to verify the basic existence of image-induced judgment biases. Step four served to replicate, further characterize and explain image effects against the theoretical background outlined in step two. Accordingly, I set image effects in relation to what I had found to be the most promising key variables: involvement and knowledge.

Steps three and four were considered in the studies reported. Based on the theoretical assumption that images are cognitive schemata, I expected to find distortions of product ratings that are caused solely by the influence of image. And based on dual-process theories, I hypothesized that such image effects could be explained by low elaboration, which I assessed by measuring involvement and knowledge. As no such interactions were found in study 1, my co-authors and I raised the expectation that involvement and knowledge would not significantly moderate image, therefore we hypothesized in the opposite direction in study 2. However, we expected both factors to show main effects on product ratings. We further predicted that customer satisfaction would influence product ratings, but less so than image.

In these studies, several objectives had to be met. Most importantly, a working experimental design had to be set up. Based on related social cognition research on stereotypes, the scenario “same message, different sender” should be adopted. Accordingly, participants should be presented with products that appeared to originate from different manufacturers, but in fact were identical. To achieve a successful manipulation of image, it was also important to select suitable product domains and brands, but without using the outworn and one-dimensional taste test paradigm. After that, highly credible stimuli as well as scales for rating them had to be created. Possible control variables had to be taken into account and accurate measures for involvement and knowledge had to be created.

4.2 Summary of Conceptualization and Theoretical Considerations

In step 1, after looking at the history of conceptualizations of the image construct as well as more recent propositions, I proposed a working definition of image as the stereotypical summation of individuals' attitudes towards an object. This accounts for the two important notions in this context: for one, that image is analogous to schematical thinking, but also, that image is the sum of attitudes of individuals towards an object. I specified that an image is always logically bound to the object, and that there is only one image per object. On the other side, there are many individual attitudes towards the objects, held by individual customers. I highlighted that differences in individual attitudes are due to different valuations of the respective object. Moreover, this variance is augmented by the different information sources individuals are using. Further, I pointed out that image effects are not necessarily negative, but could possibly serve to save cognitive resources.

The purpose of the following step 2 was then to embed this conceptualization of image into a theoretical framework. Reviewing the antecessors and close relevants of my studies, I proposed that image effects may be theoretically embedded in social cognition and stereotype research, and on the other side, in dual-process theories of information processing. Next to these research lines, I highlighted the analogy of image and judgment heuristics. These theoretical considerations were necessary because from the antecessors I reviewed, I was not able to retrieve satisfactory theoretical considerations that would have allowed me to draw well-grounded hypotheses.

Image research has been the territory of economists for a long time now, and consumer psychology only just begins to claim its territory in the area. Therefore, my studies are novel. This brings with it that some of my considerations are coarse meshed. Nevertheless, I believe they are fundamental to consumer centric image research. I hope to hereby provide the necessary building blocks for further, more elaborate studies.

4.3 Summary of Results

In two studies, participants were asked to evaluate products. The products were identical, except for their brand images. Like this, the sole effects of image on consumers' product ratings could be assessed. Study 1 focused on establishing a successful manipulation of image. Study 2 focused on elaborating the findings from study 1 by relating image more closely to possible moderating factors.

4.3.1 Study 1 – Image Effects: Consumers' Stereotypical Product Ratings

For the first study, newspapers were chosen as the product domain. Pretests on the images of Swiss newspapers revealed that *Blick* and *NZZ* had most distinct and salient images. They were therefore selected as brands to be used for the manipulation of image. Fictitious articles were created, with the same text, but in the respective newspapers' appearance. The manipulation was successful and participants believed the stimuli were original articles from *Blick* or *NZZ*.

Subsequently, participants rated the articles: first, on a unidimensional, holistic attitude item, and second, on a multidimensional set of relevant items that had been collected in a pretest. My main hypothesis was that these ratings would turn out very different, although actually, all participants had read the same article. This was confirmed. Both the unidimensional as well as the multidimensional measures revealed different evaluations of the fictitious newspaper articles. The effect sizes of the product rating differences were very consistent and strong, surpassing even my highest prior expectancies.

Also, the hypothesis that the two stimuli would be rated according to their respective brands' images was confirmed. *Blick* generally has an image inferior compared to *NZZ*. Indeed, participants rated the article from *Blick* as worse than the article from *NZZ*. An interesting note is that these judgments were apparently made independent from actual product usage, which is low for both titles.

I further predicted that the salience or visibility by which a product conveys its respective brand image determines the size of the image effect. To test this, I set up two conditions that received the article in neutral layouts, but also with the instruction that it

was from *Blick* or *NZZ*. Indeed, the ratings still differed in the expected direction, but they did so to a lesser extent, confirming my expectation.

A factor analysis of the multiple attributes product rating measure revealed three relevant dimensions that account for quality ratings in the domain of newspapers: quality as the most important, followed by complexity and relevance. As expected, *Blick* and *NZZ* differ significantly on these dimensions. It is noteworthy that *Blick* yields better ratings for items loading on the factor complexity.

Several control variables had no influence on the effect of image: neither involvement, nor knowledge or usage. The respective hypotheses were not confirmed. Also, no demographic variables interacted with the image factor. Next to the large main effect for image, a small main effect was found for involvement. Knowledge and usage both had no significant main effects.

Although I had anticipated that involvement and knowledge might potentially not influence the image effect very much, the finding that it was not at all affected by these two variables attracted my highest attention.

4.3.2 Study 2 – Image Effects: A Closer Look at Processes Involved

Study 2 served to elaborate on the prior findings. The image effect should be replicated and it should be tested whether or not it is really independent from involvement and knowledge. This time, internet access packages from *Cablecom*, *Swisscom* and *Sunrise* were chosen as product domain, because we expected the respective brand images to be less salient than the newspapers in study 1. Also, other than in study 1, most participants were supposed to have own actual customer experiences with one of these brands. Consequently, we expected higher levels of knowledge and usage. With these modifications, the effect sizes of image, involvement and knowledge were expected to be more comparable. If any interaction was present, then mathematically it could now easier be revealed. Further, because of the supposedly high level of usage, customer satisfaction based on actual product experience could be surveyed, other than in the preceding study.

In pretests, we found the three major brands *Cablecom*, *Swisscom* and *Sunrise* to have different and salient images. As expected, the differences were more moderate

now. Subsequently, fictitious product descriptions for internet access packages were created that described an identical product, but carried the corporate designs and the names of the respective brands. The stimuli were successfully pretested for credibility.

As the objective of the study was to narrow down the prior findings, we emphasized the quality of the measures. For involvement and knowledge, standard scales could be adopted, whereas for product rating, we constructed our own, similar to Aaker's (1997) brand personality scale. But instead of using the same set of items, we ran pretests to collect a more relevant set of attributes, in order to reflect the critique by Azoulay and Kapferer (2003) on shortcomings of brand personality scales. Our scale proved highly reliable. A factor analysis of the scale extracted six relevant rating dimensions, which were then used as dependent variables.

Again, participants were now asked to rate these products. As in study 1, the ratings for the product descriptions differed significantly, only because of the exchanged brand images. Thus, the main effect of image was replicated. We hypothesized that next to image, involvement and knowledge would also affect product ratings. This could now be confirmed. At the same time, the goal of achieving well balanced effect sizes was met.

Contrary to study 1, we now hypothesized that involvement and knowledge would *not* moderate the effect of image. In fact, no significant interaction was found. Given the balanced effect sizes, the high power of the test and the fact that the result pattern of the MANCOVA exactly matched our a priori hypotheses, we regard our expectation as confirmed. At least for the present study, we could confirm that image was an independent factor influencing consumers' product ratings.

The assumption that most participants would be customers of the three brands proved true and we were thus able to assess customer satisfaction. The obvious hypothesis that customer satisfaction determines the product ratings was confirmed. More importantly, we found evidence for our assumption that image is equally or sometimes even more important than customer satisfaction, because the effect size of the latter was lower than that of image.

4.3.3 *Conclusions From the Studies*

Considering the present findings, the following conclusions can be drawn: Image has a major influence on consumers' judgments. Depending on the product domain, the effect of image is just as large as or even larger than the effects of involvement and knowledge. Image effects cannot be explained by low involvement and knowledge, as they still persist even when the latter are high. Moreover, image can actually be more important for consumers' product ratings than their own personal experience and customer satisfaction.

The relevance of these findings is clear: They carry important implications for the research fields of consumer psychology and behavioral economics. Moreover, individuals as well as manufacturers will profit from knowing how strongly customers' decisions are influenced by images. Yet, future studies are necessary to test whether the results of the present studies can be generalized and to investigate the interplay of image with other factors that influence consumer behavior.

4.4 Discussion of Studies

As shown in the summary of results, the research questions I raised in the introduction are now answered. First, image alone can lead consumers to judge otherwise identical products differently. Second, this cannot be explained by low elaboration. In the following sections, I will discuss the studies and their results. Further, I will point at open questions that need further considerations.

4.4.1 *Importance of Findings*

Image is crucial nowadays, both for customers and manufacturers. Simon (1971, p. 40-41) claims that we live in an “attention economy”. After the studies conducted during this dissertation project, I can add that we live in an “image economy”, because individuals are strongly influenced by brand images. It is impossible for consumers to elaborately process all available information. Regarding the theoretical background of heuristic judgment, I see image as a guiding light, leading consumers through the maze of overwhelming amounts of product information.

Analogous to a popular scenario from stereotype research, participants were confronted with stimuli that differed only in their images, but were otherwise identical. The experimental manipulation proved successful and made it possible to detect product rating differences that are only caused by the respective images. I designate this as image effects. While it was expected that image would influence decision making to some degree, the large size of the image effects that were found is remarkable. This is the first important finding of the studies.

In an attempt to explain possible moderating variables, image effects were supposed to disappear or at least be decreased at high levels of involvement and knowledge. In the domain of consumer psychology, this is a common assumption. However, we found clear evidence against this. In both studies, the image effect was not decreased significantly through involvement or knowledge. This is the second important finding.

However, I do not claim that involvement and knowledge are irrelevant. They both have shown separate effects on consumers’ judgments. Rather, I propose that

image should be conceived as a separate main factor next to others that are influencing the consumers' decision making. For now, image effects cannot be explained away with the argument of low elaboration.

Also, image effects may occur independently of usage (study 1) and customer satisfaction (study 2). Although customer satisfaction affected participants' product ratings, image actually was found to be slightly more important. This is the third important finding.

The experimental design I presented further comprises an indirect measure for brand image, because the image effect caused product ratings to gravitate towards the respective manufacturers' brand images, which was also confirmed by the multivariate tests. This allows for creating image profiles from product ratings. It may not be completely unobtrusive, but I believe this procedure offers a convenient tool for revealing brand image profiles that contain not only explicit, but also implicit attitudes.

4.4.2 Distinctions From Prior Studies

The studies presented are apart from the majority of image research which strives to obtain descriptive image profiles for brand positioning. Rather, the focus was on understanding the psychology of image: the effects it has on consumers' decision making, whether or not it is moderated by involvement and knowledge, and how it relates to other variables like usage or customer satisfaction.

Nevertheless, a few antecessor studies have investigated the image phenomenon and its relevance for consumer behavior, and some researchers have followed a comparable rationale and applied similar experimental settings, as I have shown in the introduction (e.g., Allison & Uhl, 1964; Quigley & Notarantonio, 1992; Wansink et al., 2000). In order to advance this research line, the present studies were designed to be distinctive from prior research regarding two deliberate aspects.

Multidimensionality. First of all, the multidimensionality of image-influenced product ratings was considered. Many prior studies used a taste test paradigm, which offers only a one-dimensional dependent variable. On the other side, related studies on country-of-origin effects or price image are limited to a one-dimensional independent

variable. Although image can be conceived as a holistic entity, it encompasses a variety of relevant attributes.

Following these considerations, I applied two product rating measures: a simple, holistic one and a multidimensional one that consisted of multiple relevant attributes, collected in pretests. In the end, both showed high convergent validity. The implication for future studies is that if quick, relatively unelaborated ratings are sufficient, then the use of a one-item preference measure is appropriate, whereas multidimensional scales are able to detect more fine grained differences, but the respective measures are more difficult to construct.

To my knowledge, the present studies are the first to investigate image using both multidimensional independent and dependent variables at the same time. On the side of the independent variable, the multiple dimensions consisted of brand image, which in itself is multidimensional, involvement, knowledge, usage, and customer satisfaction. The dependent variable consisted of multidimensional product rating scales and self-report items.

Product Domain. The present studies were conducted in product domains where image effects have not been investigated before. Prior studies mostly involved the usual goods like cars or drinks. Exploring image effects in previously unexplored domains like newspapers' and telecommunication services seemed to offer attractive new insights. At the same time, these markets promised to be suitable for detecting image effects, as brands are available that have salient, distinct images. Also, these domains promised to be of higher relevance in today's knowledge society than commodities, which has probably leveraged the variances of knowledge and involvement. Looking back, the domain selection proved successful. Image researchers are hereby encouraged to engage in new product domains.

4.4.3 Implications of the Present Studies

What do the present findings about image effects mean? Subsequently, I will outline the most important implications that can be drawn from the studies and discuss them against the background of my theoretical framework. Further, I will relate my findings to theories and other studies that I have not previously considered in this

dissertation, but which may be helpful for interpreting the present findings and for understanding image effects in general.

Consumers are Sometimes Fooled by Brand Images. Images can be deceptive, as they do not convey accurate descriptions of their beholders. Consequently, the consumers' decision making processes are more or less distorted by images, for instance, when products are being evaluated. Seen from the manufacturers' side, the present studies highlight the importance of maintaining a favorable image to direct consumers' preferences. In the present studies, participants were misled by an experimental manipulation only, so no harm was done. But it is obvious that image holders who know the power of image effects could use them to fool people into inadequate buying, voting or other decisions. Consumers who are aware of this might better resist potentially misleading persuasive attempts.

Image Effects are Stereotypes About Products. Participants were consistently and strongly misled by the images of the brands whose products they rated. Considering the theoretical background proposed in section 1.4, I assume that the images associated with the stimuli functioned as schematically simplified representations of the respective manufacturers. Participants have possibly used these schemata to infer product attributes during the evaluative process.

The finding that stereotypical ratings prevailed even at high levels of involvement and knowledge can be theoretically explained by "ironic monitoring processes" (Wegner, 1994). Accordingly, participants with high involvement and knowledge might have monitored their rating processes, in order to not allow themselves to be influenced by the newspapers images. Ironically, such monitoring could have activated associations related to the respective images, effectively increasing instead of decreasing their stereotypical influence.

Image Effects are not Negligible. As a consequence of being stereotypical, the product ratings were quite inaccurate. The degree of inaccuracy may vary between product domains and customer segments, but it is clearly not irrelevant. Looking at the effect sizes of the two studies, one must conclude that image effects have a large potential to direct consumers' actual behaviors accordingly. This means, for example, that participants from study 1 would have decided to subscribe to *NZZ* rather than *Blick*.

The relevance of this easily comes to mind when remembering previously mentioned examples: the crash of the dot-com bubble or recent US presidential campaigns.

Image Effects can be Regarded as Smart Errors. The participants in our studies undeniably committed errors. It is most likely that this finding can be generalized to the real world, where a consumer rates an actual product and makes judgments about its quality. But these errors may be regarded as reasonable. Based on my previous considerations about image as judgmental heuristic, I assume that participants have indeed used the images as heuristics. Normally, this could have led them to sufficiently accurate ratings using only little amounts of cognitive resources. However, they did not know that they were in an abnormal situation where the images had been manipulated by the experimenter. Considering this, I adhere to the notion that images are potentially beneficiary cognitive shortcuts in the sense of judgmental heuristics.

Involvement and Knowledge may not Help. In the present studies, image effects occurred independently from involvement and knowledge. Even when these were high, the product ratings were distorted by the images. This implies that consumers are always subject to image effects. Even expert consumers like purchasing agents are likely to be influenced by images (Verlegh & Steenkamp, 1999). Of course, the finding that image is independent of involvement and knowledge does not mean that they are irrelevant for consumer decision making. As I have pointed out, they both showed significant main effects on product ratings.

Image Effects and High Involvement and Knowledge do not Object. If image is conceived as a heuristic, where information processing occurs peripherally, automatically and intuitively, shouldn't image effects be decreased at higher levels of involvement and knowledge? Not necessarily. Naturally, the conception of image as heuristic implies that it is applied mostly by lay individuals who lack the resources of knowledge or involvement, which is plausible. But it must be considered that also experts may profit from heuristics. They actually possess enough involvement and knowledge, but for any reason may not use them – be it because using them is tedious, or simply because they want to save other resources, such as time. This is also consistent against the theoretical background of dual-process theories. From the perspective of the elaboration likelihood model (ELM; Petty & Cacioppo, 1986), it can be argued that participants could use image cues on both routes to persuasion, just as it

is the case with other factors (Petty & Wegner, 1998, 1999). Moreover, as Eagly and Chaiken (1993) have suggested, even peripheral cues can lead to persuasion. Accordingly, even though images are supposed to be mostly peripheral cues, they can be of importance in persuading customers. Analogous explanations can be derived from the heuristic systematic model (HSM; Chaiken, Liberman & Eagly, 1989). According to Bohner, Moskowitz and Chaiken (1995), systematic and heuristic processing may interact in various ways. For example, Chaiken and Maheswaran (1994) found that “heuristic processing can bias systematic processing”. The findings of the present studies are in line with this, as it is most likely that heuristic information (brand images) has distorted systematic information (actual products).

In everyday life, most of us will have collected own episodes supporting these considerations. In many individual or social evaluation situations, judgments could have turned out more accurate than they did, if only the available involvement and knowledge had been used to better elaborate the provided information. It is not disrespectful to say that by default, humans are cognitive misers (Fiske & Taylor, 1991) – and so are experts.

Self-Image Congruence may Support Image Effects. The finding of image effects can sensibly be connected to prior research on self-image congruence (e.g., Sirgy, 1985; Sirgy & Danes, 1982). This highlights another possibility for why image effects may prevail even at high levels of involvement and knowledge. According to the research line of self-image congruence, individuals prefer products with brand images that are in line with their self-concepts. I assume that this might have influenced the majority of participants in study 1 who had a preference for *NZZ* and were presented with a *Blick* article that was better than expected.

Overconfidence and Neglect may Support Image Effects. The previous argumentation line of self-image congruence is closely related to the theory of cognitive dissonance (Festinger, 1957). Participants in our studies strongly favored *Blick* over *NZZ*. Confronted with a stimulus article that was perceived as better (*Blick*) or worse (*NZZ*) than expected, they may have experienced cognitive dissonance between their prior preferences and their current product evaluations. To counteract, participants may have neglected their dissonant actual product evaluations. Similarly, they may have used overconfidence as a dissonance reduction strategy, as has been suggested by

Blanton, Pelham, DeHart and Carvallo (2001). They state that “overconfidence can result from a desire to see the self as knowledgeable and competent.” Notably, the same authors further support my rationale by concluding that “people are often more confident than accurate.”

Protected Values may Support Image Effects. Similar to the preceding statements, it could be hypothesized that protected values may have hindered accurate product ratings (e.g., Fiske & Tetlock, 1997; Tanner, in press). It seems plausible that student participants hold protected values against sexism, populism or superficiality. The image of *Blick* contains many of these notions, while the image of *NZZ* conveys very much the opposite. If participants had rated the article from *Blick* better than the image the brand holds, they would have committed taboo-tradeoffs and violated their protected values. No similar values are related to the internet provider brands. Accordingly, different amounts of protected values may have contributed to the different sizes of the image effects.

Image may be an Experts' Decision Making Strategy. Images can not only bridge laypeople's knowledge gaps. It might also enable experts to make simple, but effective decisions. As Gigerenzer & Todd (1999) pointed out, even experts sometimes make use of heuristics that are both “fast and frugal”. For one, because experts too strive to save energy, as I have discussed in the two preceding sections. But also, because there are situations in which heuristics actually outweigh more elaborate decision making strategies regarding the quality of their outcome – moreover, some experts even need to rely on heuristics. If they are asked not to, the accuracy of their decisions decreases (Gigerenzer, 2007). This contradicts the popular belief that experts consider all possible aspects, carefully weight them and then add them all up to come to the right decision. The latter is often referred to as weighted additive mechanism (WADD), a core assumption of the multiattribute utility theory (Keeney & Raiffa, 1976). I assume this could be a second possibility for why experts – usually people with high involvement and knowledge – are suspect to image effects: because using images might in certain domains be superior compared to WADD and other strategies. Whether this holds true or not will certainly depend on the specific decisional task. For example, I can imagine that using images might prove successful if the amount of products to be

rated is large, or if the complexity of the products is excessive, or under time constraints. Future studies are needed to investigate this assumption.

To summarize the implications: Consumers are influenced by brand images, and inaccurate product ratings can result. I consider such image effects as stereotypes about products, because brand images are schemata about manufacturers. Individuals base their judgments on these schemata. As my studies show, consumers infer product attributes from the images of the products' manufacturers. The resulting inaccuracies are not negligible, for image reaches effect sizes that are equal to (study 2) or even higher than (study 1) other important determinants of consumer decision making, like involvement and knowledge. These two do not decrease the image effect, which I consider as remarkable. Yet, this can be theoretically explained using the framework proposed: First, it could be an ironic consequence of stereotype suppression. Second, from the dual-process perspective, image cues may not only take the peripheral, but also the central route to persuasion. Third, image may be seen as heuristic decision making strategy. As such, image might be useful for covering gaps in laypeople's knowledge, but also as a fast and frugal judgmental tool for experts. Accordingly, although image effects may cause errors, these can often be reasonably explained. Hence, I suggested that some image effects may be conceived as smart errors. But not all, as I have discussed. There may be less reasonable causes: self-image congruence, overconfidence or neglect, for example.

The present findings should not be misunderstood as a proof for how faulty and erroneous consumers' judgments are. After all, participants were exposed to an experimental manipulation that was specifically designed to mislead them. Yet, this highlights the possibility for manufacturers to willingly manipulate their images in order to fool customers into making potentially undesired decisions.

4.5 Directions for Further Research

In the preceding section, I have highlighted the importance of image effects and pointed out the most relevant implications of my findings. The theoretical framework of stereotypes, dual-process theories and judgmental heuristics allowed for some sensible explanations for why image effects exist, how they occur and why they are persistent. The discussion so far has already hinted at open questions. I will now summarize them and propose directions for further research. These should first elaborate the present findings and later expand the research line of image effects. I will also provide short outlines of how the experimental setting used in the present studies could be modified to address future research questions.

4.5.1 *What to Consider Next: Elaborating the Present Findings*

Attitude Strength. The relevance of attitude strength has long been discussed and is generally accepted in attitude research and consumer psychology (e.g., Haugtvedt & Wegner, 1994; Krosnick & Petty, 1995; Priester, Nayakankuppum & Park, 2004). As I have defined image as stereotypical sum of attitudes, it follows that if people have strong attitudes towards an object, its image will be more salient. It can be concluded that the salience of an objects' image influences consumer behavior. For example, the present findings confirm that *Blick* and *NZZ* have more salient images than *Cablecom*, *Sunrise* and *Swisscom*. Obviously, participants had stronger and less ambivalent attitudes towards the two newspaper brands. I suppose that these salient images aided the ease of retrieval (Fazio, 1995). While rating the stimuli, participants in study 1 might have more easily retrieved image attributes for inferring product ratings. In other words: The more salient the image, the larger the image effect. Future studies should assess whether strong attitudes bring about large image effects. We currently conduct specific experiments to test this hypothesis (Moser, in prep.).

Task Importance. The influence of perceived task importance needs further investigations. As Chaiken and Maheswaran (1994) could show, information may be processed heuristically if task importance is low, regardless of argument ambiguity or strength. Considering consumers' product evaluations, Maheswaran, Mackie and

Chaiken (1992) found that they were less accurate when task importance was low. Accordingly, I suspect task importance may contribute to explaining the present findings to a certain degree. After all, participants were voluntarily completing an online survey – nothing much was at risk and therefore, the task was not very important. Possibly, if we had promised the top third of participants a three week luxury holiday trip to Hawaii, they might have rated the products less heuristically. Follow-up experiments should manipulate task importance to identify its influence on image effects. At the same time, if future studies succeed at inducing high task importance, they must control for possible interaction effects with non-functional sources of image effects like self-image congruence, overconfidence or protected values. As I have discussed in 4.4.3, such non-functional image effects might occur even at the highest levels of elaboration and hinder detecting the main effects of task importance. It would be a great achievement if image research once succeeded to integrate all of these variables into a unified model which reliably explains all of their relations.

Involvement. Similar to task importance, the absolute levels of involvement need more attention in the future. Maximum involvement is hard to achieve in an online study. Although we observed relatively large variances of involvement in study 1 and moderate variances in study 2, it remains unclear how high the absolute levels of peak involvement really were. Considering the close relationship of involvement and task importance, one might object that in our experiments, even the highest observed levels of involvement could have been moderate, simply because involvement is limited with the experimental setup applied. The argument is plausible, because low involvement is a problem inherent in most online research. To some degree, it could have been circumvented using the high hurdle technique (Reips, 2002), but then we had risked to lose the low-involvers. We adapted the design of the abovementioned experiment (Moser, in prep.) so that half of the participants have to take a high hurdle. We expect them to show higher involvement, but as it is unclear whether this will suffice, other attempts of eliciting high involvement should be undertaken. I assume the present experimental scenario is basically suitable to induce higher levels of involvement. Eventually, data acquisition should be conducted offline, under more controlled conditions. Roughly, a possible scenario could be to let expert buyers rate products from their actual domain of expertise, fictitiously manipulated like the stimuli in the present

studies. A cover story could instruct them that according to their ratings, either company A (their actual employer) or company B (a foreign company) will be contracted and that if their ratings would turn out accurate, they would receive a prestigious certificate.

Ironic Monitoring and Image Suppression. Regarding the similarity of images and stereotypes, an ironic monitoring process (Wegner, 1994) might have occurred. To address this question, future studies should ask whether or not participants were aware of a certain image and if they had tried to suppress it during product rating. If ratings would turn out to be more accurate for participants who were not aware and did not try to suppress the image, ironic monitoring would be a likely cause for image effects.

Speaking more generally, it would be interesting to know if and how image effects can be controlled. Knowing this holds obvious benefits for consumers, but also for manufacturers: I assume that the publishers of *Blick* would be very happy if they knew how to achieve more accurate judgments of their product. Like for the present studies, adapting experiments from stereotype research seems to offer promising approaches, for example regarding the moderating role of processing objectives (Macrae, Bodenhausen, Milne, Thorn & Castelli, 1997). Considering the ongoing discussion on automaticity and suppression of stereotypes, (e.g., Bargh, 1999; Devine & Monteith, 1999), I suppose that there is no simple and universally applicable way of overcoming image effects in consumer behavior. However, as a first attempt to find out if image effects can be suppressed, a slightly altered replication of the present studies should be conducted. Prior to the product rating task, one half of the participants would receive clarifying instructions about image effects. I hypothesize that ratings of clarified participants will be more accurate. If no difference were found or if their ratings were even more inaccurate, then ironic monitoring might have occurred.

Central or Peripheral Processing. The present findings support the notion that there are “multiple roles for persuasion variables” (Petty & Wegner, 1998, 1999). My experiments have shown that images may affect judgment on both the central as well as the peripheral route. The conditions under which image cues are used on the central or peripheral route need to be revealed in future experiments. For a start, it may be succinct to ask participants how important and present the respective image was to them during their ratings.

Image Effects and Behavior. The definition of image as sum of attitudes touches the old controversy of how far attitudes translate into actual behavior. Although researchers are more confident now than years ago (Ajzen & Fishbein, 2005), the attitude-behavior relationship varies depending on attitude domain (Kraus, 1995), attitude strength (Fazio & Williams, 1986; Kraus, 1995) and also personal variables, for example self-monitoring (Snyder, 1987; Snyder & Kendzierski, 1982). Therefore, I see a need to examine whether image effects manifest themselves not only as inaccurate product ratings, but also as inaccurate product *choices*. At first sight, it seems clear that there will be a strong positive correlation – but such a conclusion could be premature, as the example of *Blick* suggests: Although it received bad ratings, it is the newspaper with the highest circulation in Switzerland. I consider it as a most relevant scope for further image research to investigate the factors that moderate the relationship between image and buying behavior.

Image as Decision Making Strategy. From relating image to judgmental heuristics, the question emerges how fast and frugal images are as heuristics. The perseverance of image effects underlines the importance of images. Therefore, it is reasonable to hypothesize that in certain settings, relying on image might be on par with or even outweigh other decisional strategies. To answer this question, experiments should be conducted in which participants' decisional strategies are controlled and measured up against each other. It could be hypothesized that under time constraints or when the judgment task is highly complex, image-based decisions might compare well against other strategies.

Measuring the Inaccuracies Caused by Images. Continuing the rationale of image as heuristic strategy, experimenters should seek to quantify how inaccurate image-influenced product ratings really are. For example: In study 1, participants rated the article from *Blick* as being much less objective than the article from *NZZ*. Yet, a thorough examination of the newspapers' reports on the 9/11 attacks using quantitative content analysis (Jäger & Strausak, 2003) suggested that *Blick* was more objective than *NZZ* and that it even was the most objective newspaper of all.¹⁰ Relating Jäger and Strausak's (2003) study and my newspaper study imposes a measure for the discrepancy

¹⁰ As it is common in media research, speaking of a newspaper as being more or less "objective" means that its articles are less interspersed with valuating comments of the writer (Vögele, 2004).

between image-based ratings and an objective rating. It is impossible to specify such a measure for study 2, because no objective comparative exists. However, I propose that the effect sizes of image effects can be used as placeholders for measuring the degree of inaccuracy. Consequently, I hypothesize that the ratings were more accurate in study 2 than in study 1, because the effect size of image was larger in study 1.

I suggest to further investigate how inaccurate image-based ratings really are. This will be easiest in domains where objective data exist, as in the prior study on car safety that I reported in section 1.3.6, where subjective ratings of safety and image could be compared to an objective crash test database (Fichter, 2007). In this context, I predict that the more a brand or market sector relies on image, the larger the rating inaccuracy will be.

Protected Values. Reconsidering that brand images touching consumers' protected values might augment image effects, experiments could be conducted that specifically assess this relationship. The newspaper context of study 1 seems to offer an ideal environment. Basically, asking participants if personally important values were touched by the brands associated with the rated products could be sufficient. I hypothesize that if products are associated with important values, they will be rated strictly in a way that serves to protect these values. The findings from study 1 strongly point in this direction. This is currently being investigated in a context of corporate crisis communications (Moser, in prep.).

4.5.2 *What to Consider in the Long Term: Expanding the Research Line*

Images and Social Norms. Informational influence (Deutsch & Gerard, 1955) and conformity (e.g., Asch, 1951) explain why individuals make judgments conforming to others. According to the definition of image, it encompasses the attitudes of these "others". Research has shown that individuals may prefer being conform to others over retaining their own opinion. Following this argumentation, I suspect that images may have strong normative influence on individuals. It would be interesting to specifically investigate whether consumers' product ratings depend on social influence. The present studies already offer a first hint, because one can easily imagine that there is a strong social norm for students to prefer a more academic newspaper like *NZZ* over a populist

one like *Blick*. Weaker norms exist for internet provider brands, which might explain the smaller image effect in this domain to some degree. I hypothesize that the more a brand is related to social norms, the stronger the image effects for the respective group of consumers will be.

Visibility. If the argument that images convey norms is true, it follows that a product's visibility contributes to image effects. Prior research has shown that products are chosen not only according to personal preference, but also for signaling one's identity to others (e.g., Berger & Heath, 2007). This allows to conclude that highly visible products are more suspect to image effects than products that are only consumed privately, which is in line with the present findings: Newspapers are highly visible and often read in public settings, whereas internet access products are covert and consumed in privacy. Therefore, I suggest that visibility might further explain why the image effect was larger for newspapers. This question should be considered in further studies. If this hypothesis gets confirmed, manufacturers of highly visible products could be advised to invest more in their images.

Self-Image Congruence. Sirgy (e.g., 1985) found that individuals strive for self-image congruence. This means that consumers prefer products that are in line with their self-concepts. My findings suggest that self-image congruence is a factor contributing to image effects. In a student sample, participants are supposed to hold self-concepts that are more similar to the image of *NZZ* than *Blick*. I assume that the product ratings were biased accordingly. Future studies could address this specific question by surveying participants' desire for self-image congruence regarding the product in question. As with visibility, finding self-image congruence determining image-effects would be interesting for basic consumer research and most valuable for manufacturers.

Demographic Variables and Personality Traits. The present studies involved homogenous samples, because image effects were more likely to be detected this way. Nevertheless, it would be interesting to investigate which demographic variables and personality traits moderate the image effect. Influences of personality traits have been found by Zhang (1996) for country-of-origin effects, which are similar to the more general image effects. I propose that age, social background, education and similar variables should be systematically surveyed in future studies on image effects. An example for a trait that affects elaboration and hence product ratings is need for

cognition (Cacioppo & Petty, 1982; Cacioppo, Petty, Feinstein & Jarvis, 1996; Lord & Putrevu, 2006). In this context, it has been shown that individuals with low need for cognition were more influenced by peripheral advertisement cues than those with high need for cognition (Haugtvedt, Petty & Cacioppo, 1992). Analogously, it could be hypothesized that persons with lower need for cognition are more suspect to image effects. However, my assumption is that while the size of image effects will vary due to demographic or personality differences, the direction of the change of the product evaluation will remain constant. This is in accordance to my specification of the definition of image in section 1.1.7: There is only one single image per object. For example: Younger and older readers of newspapers will rate them with different degrees of inaccuracy, but with the same prefix.

Affective States. In the same rationale, also personality states are known to influence consumer decision making. Regarding image effects, affective states seem especially promising to look at. It has been shown that a slightly bad mood leads to more systematic processing of arguments (for overviews, see Isen, 1987; Schwarz & Clore, 2003). Accordingly, participants in the present studies who were in a negative affective state might have given more accurate product evaluations. Following the finding of study 1 that brand images are able to alter self-reported mood states, it can be expected that participants who were in the *Blick* condition were put in a slightly bad mood. Their product ratings therefore should have been more accurate than those in the *NZZ* condition. Because the present studies involved no objective measure for inaccuracy, this conclusion is speculative and needs further consideration. But obviously, it would be most interesting if future studies could confirm the hypothesis that negative images actually lead to more accurate product evaluations than positive images.

4.5.3 *Methodological Outlook*

In a concluding outlook, I will now consider unconventional methodological and theoretical advancements that might potentially open new perspectives for consumer psychological image research in general and more specifically, for investigating image effects. Clearly, there is an unscientific hype associated with the buzzwords

neuromarketing, neuroeconomics, viral marketing and memetics. Regardless of this hype, the promises of these concepts are worth being carefully considered, as acknowledged authors propose – for example, Loewenstein, Rick and Cohen (2008) in their up-to-date overview of neuroeconomics or Leskovec, Adamic and Huberman (2007) in an analysis of the dynamics of viral marketing.

Dependent Measures. The present studies used product rating surveys as dependent measures. They have worked as expected and are satisfactory for this dissertation. Although most of the participants completed the questionnaires online, it is however possible that answers were distorted due to experimenter bias or social desirability. As discussed before, there may be differences between consumers' expressions of attitudes and corresponding behaviors. Especially regarding *Blick*, it seems plausible that although some consumers' explicit ratings are negative, they do read the newspaper anyway. To circumvent such biases in future research on image effects, I suggest the use of more unobtrusive measures. One possibility is using functional magnetic resonance imaging (fMRI) for detecting product preferences. For example, McClure et al. (2004) were able to reveal participants' preferences for Cola beverages using fMRI. The downside of brain imaging is cost. I think that less expensive measures would also be sufficient for detecting image effects: Physiological measures like electrodermal response (EDR), electroencephalography (EEG) or pupillary response (PR) should prove reliable enough to detect product rating differences caused by images. Alternatively, Mast and Zaltman (2005) suggest using measures following the response time paradigm for consumer behavioral research. As an example for such, Maison, Greenwald and Bruin (2001, 2004) found the implicit association test (IAT) to be a better measure for consumer attitudes than explicit self-report. I therefore suggest implementing an IAT for the detection of image effects.

However, future studies using more unobtrusive measures must consider the low dimensionality of the currently available implicit procedures as a potential drawback. As I have discussed in 4.4.2, the multidimensionality of the scales used in the present studies is an advancement over prior research. But if my findings of high convergent validities of uni- and multidimensional measures for product ratings hold true, using implicit measures for further image research offers a most promising approach to overcome biases and limits of self-expression.

Viral Marketing, Memetics and new Experimental Testbeds. Viral marketing addresses the phenomenon that consumers' word-of-mouth recommendations can boost market success of a product or a brand. The concept of viral marketing is based on a proposed analogy between ideas and viruses. The basic assumption is that ideas spread in a similar way as viruses do: If an individual gets infected by a virus – or an idea, respectively – she will carry it and transfer it to others. Closely related, but on a more general level, the evolving research line of memetics strives to build the theoretical foundation for investigating viral propagation of information. In my opinion, memetics offers more than a beautiful metaphor. Authors like Dawkins (1993) and Blackmore (1999) have been able to provide theoretical reasoning for a number of previously unexplained problems, especially regarding the development of human culture – of which consumer behavior is a part of.

Connecting these considerations to image effects, it is unclear whether future studies will be able to succinctly explain them by investigating variables on the level of the human individual, for example using involvement and knowledge as in the present studies. I can imagine that some images are more successful than others just because they incorporate extremely robust attributes – in other words: memes – that overrule involvement, knowledge, heuristics and other factors. Either way, I believe that the memetical approach is worth considering. Images could be described as conglomerates of ideas, and therefore, images may spread like ideas. A well grounded memetical analysis of why some images are successful and others are not would be welcome to both basic and applied consumer psychology.

I recognize that to hope for memetical explanations for image effects might be a little early, because as with all evolutionary theories, they are difficult to test. But as in related domains like epidemiology and sociology, mathematical (e.g., Leskovec et al., 2007) and simulational approaches might soon provide suitable empirical environments. For example, Mosler, Ammann and Gutscher (1998) investigated environmental interventions using a computer simulation of the elaboration likelihood model (ELM). Later, Mosler and Brucks (2002) simulated cooperative behavior in resource crises. Recently, Wilson (2007) was able to simulate effects of social influence on group decision making using agent based modeling (ABM). However, computer simulations

are still in their infancies and currently only capable of modeling social and individual systems with relatively few degrees of freedom.

An alternative method that I consider involves online virtual communities like *Second Life* or *World of Warcraft* as test beds for large-scale experiments (Bainbridge, 2007). Such *massively multiplayer online role-playing games* (MMORPG) offer social scientists most promising experimental environments, as they combine the statistical power of a natural experiment with the ability to control independent variables as in a laboratory experiment (Castranova, 2006). Moreover, everything that happens in MMORPG-based experiments can be observed, recorded and analyzed¹¹. Considering image research, I suggest to conduct experiments where products from brands with varying images are introduced into MMORPGs. The attributes of the manufacturers' brand images could be manipulated and would serve as independent variables. Subsequently, product usage rates could be observed or recommendations amongst users could be tracked, as dependent measures. Also, standard product rating scales could be administered in product rating sessions, conducted inside the online environment.

To summarize these considerations: I suggest that future research on image effects should first elaborate on the present findings. In doing so, several open questions need to be addressed: attitude strength, task importance, level of involvement, ironic monitoring processes, processing modes, image-behavior relationship, image as heuristic, measures for inaccuracy and the moderating role of protected values seem to be logical next steps for follow-up studies. Subsequently, the research line could be expanded to relate image effects to social norms, product visibility, self-image congruence, demographic variables, personality traits and affective states.

¹¹ Recording every observation generates large quantities of data that researchers need to cope with. However, data mining algorithms are gaining acceptance in the social sciences and will allow revealing the data patterns that contain the relationships between independent and dependent variables (Hand, 2000).

4.6 Implications and Recommendations for Consumers and Manufacturers

The topic of this dissertation naturally lies in between the potentially conflicting interests of consumers and manufacturers. Consumers are interested in buying the products that best fit their needs, whereas manufacturers try to convince consumers that their specific products will fulfill these needs. Traditionally, image research has been commercially motivated. Therefore, manufacturers are supposed to be more aware of the importance of image than consumers. It could be argued that this is unfair: Manufacturers can make use of image as a persuasive strategy that the consumers are not aware of and consequently, cannot resist.

Within this dissertation, I do not take over the position of either side, because basic research should be largely independent. But I do hope that my research will provide consumers with some insights into how strongly their decisions are influenced by images, and that the manufacturers they buy from know this and use their knowledge to persuade consumers to buy from them. I do not criticize this, but want to raise the consumers' awareness about image effects, in order to better balance the knowledge about the persuasive power of image between manufacturers and consumers.

4.6.1 *Implications for Consumers*

Consumers must know that their purchase decisions are suspect to be influenced by persuasive manipulations from manufactures. The results of this dissertation suggest that when a consumer evaluates products, he should be aware that he is most likely being influenced by the respective images – and that even if he is aware, image effects may still influence his judgments, just as is the case when trying to suppress stereotypical thinking, because an “ironic monitoring process” (Wegner, 1994) can occur which acts adversely when trying to overcome stereotypical thinking, or in this case, when trying to overcome image effects. Further, consumers should be reminded that they often do not know the facts needed for rating a product accurately. At the same time, they do not realize this lack of knowledge, because possibly, the image heuristic effortlessly leads the decision making process and thus, no feeling of judgmental insecurity arises. Yet, buyers do not necessarily *need* to know more – at last, image

might serve to save resources. But in case of important decisions, one should consider that images might be distortive, and counteract this by collecting factual information about the relevant product attributes.

Further, even experts rely on judgmental heuristics, as Gigerenzer (2007) points out. Moreover, their judgments might even turn out inferior when they are explicitly asked not to use their proven expert heuristics. Accordingly, it would be too strict to recommend consumers to overcome image effects by higher awareness. Nevertheless, I suggest that consumers' image-influenced judgments will be more accurate if they try to acquire relevant information on brands and markets slowly over time and through a variety of sources. In other words: "Don't believe the hype" – rather, use different sources and take enough time before deciding.

4.6.2 Implications for Manufacturers

It is evident that manufacturers' efforts to establish and communicate favorable images are strongly supported by the present studies. Given the finding that images can be even more influential than customer satisfaction, one could conclude that maintaining a good image will prove more important than producing products of good quality. Asides from being of questionable morality, this might in fact be a successful strategy. An example is provided in political marketing, where the image of politicians is sometimes more important for electoral success than their policies (Cwalina, Falkowski & Kaid, 2005; Keller, 2007; York, 2007). Some of these authors exemplify this with the presidency of George W. Bush, which shows that images can be revealed over time, and the real person behind the image becomes apparent.

But neither politicians nor manufacturers should be advised to favor image over content, simply because over time, the probability of failure accumulates. If product quality is constantly low, it is likely that image-critical events will occur, such as undesirable product reviews or negative word-of-mouth propaganda. According to the definition, images are formed by summation over time, and a manufacturer following this risky path is prone to fail sooner or later.

The most reasonable recommendation seems to be that a manufacturer should care about both the quality of his products as well as conveying a favorable image. How

these two factors are balanced depends on the product domain and the competitors' actions. It can also be said that if a company acts in a market where competitors strongly emphasize their images, following this strategy is not obligatory. Instead, acting contrary and not conducting any image campaigns at all might actually prove more successful. The ongoing success of no-logo, no-name, no-frills products provides strong support for this notion (Klein, 2000).

In any case, the image conveyed should be accurate, because deceptive images are likely to be unveiled. The customers' cognitive image heuristic may be fooled once or twice, but not repeatedly – after all, it has evolved as an adaptive strategy for perceiving the outside world accurately enough and has proven to be stable over longer periods of time.

4.7 Conclusion

Within this dissertation project, I conducted the first studies that investigated image effects on consumers' product evaluations in the domains of newspapers and telecommunications services. In doing so, I contributed to the general understanding of images and their influence on consumers. In two studies, I found strong and persistent image effects which suggest that image is one of the most important factors in consumers decision making. Study 1 served to establish a successful experimental manipulation of *only* the images and to measure the effects of different images on consumers' product ratings. Study 2 was designed to elaborate on these findings and to explain the relationships between image, involvement, knowledge and customer satisfaction.

Compared to the countless descriptive image analyses conducted by manufacturers, basic image research that focuses on the consumers' perspective like this dissertation is rare. Also, prior studies have mostly used commodity products and simple, univariate taste test settings. To advance this, I have adopted an experimental scenario from stereotype research. This allowed for exchanging the brand images while leaving the actual product the same. To the best of my knowledge, it is the first time that this scenario has been used to investigate consumers' product evaluations in the media and telecommunications domains. Additionally, I complied with the multidimensional definition of image by using a multivariate study design.

This dissertation is one of the first attempts in consumer psychology to conceive image as a main effect and to directly investigate its explanatory power. Next to the actual empirical results of the experiments, also the conception of image as a unique and solitary factor is substantive for future consumer psychological research. To achieve this conception, I have anchored the concept in its historical roots, discussed relevant philosophical implications and provided an operationalizable, up-to-date definition. I have also established an appropriate empirical framework for image research by embedding image in between the closely related domains of dual-process models, stereotypes and heuristic decision making. As such, I have proposed a combination of close relevant theories and findings from largely disconnected literatures into a coherent

whole, in order to further establish image research as a recognized research line in consumer psychology.

Beyond the former discussion, I only want to underline a few considerations. While I expected to find image effects, they were even larger than I had anticipated. Study 1 demonstrates that brand images can be so dominant that consumers make very inaccurate judgments. Analogous findings in the domain of political decision making (e.g., Keller, 2007) further emphasize the real-world relevance of image effects beyond the boundaries of the consumer psychological experimental sandbox. Yet, the importance of image is largely unrecognized by consumers, as 85% express that personal experience is more important to them than image (Reader's Digest Trusted Brands, 2007). The present findings provide strong evidence against this belief.

Furthermore, I also found that image effects do not necessarily depend on product usage and that image can be more important for consumers' product ratings than their actual customer satisfaction. Although I predicted that image would be quite influential, these results underline the importance of image even more than I expected. Also, I was astonished to find that image effects can be independent of consumers' involvement and knowledge. While I did expect that image effects would be persistent at higher levels of these factors, I first hypothesized that involvement and knowledge would at least decrease the size of image effects. I am now convinced that this is not always the case. As I have shown in this discussion, these findings can also be theoretically explained: Salient images may lead to high attitude strength; task importance might have been limited; images may have taken the central route to persuasion; ironic monitoring could have occurred or image may have served as decision making strategy. These considerations also suggest the obvious next research questions that I will seek to answer. To conclude: I am satisfied to know the answers to my initial research questions. But the saying is true that with every new answer, there comes a new question.

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6 Appendix

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6.1 Appendix to Chapter 2

6.1.1 First Pilot Study: Image Differences Between Blick and NZZ

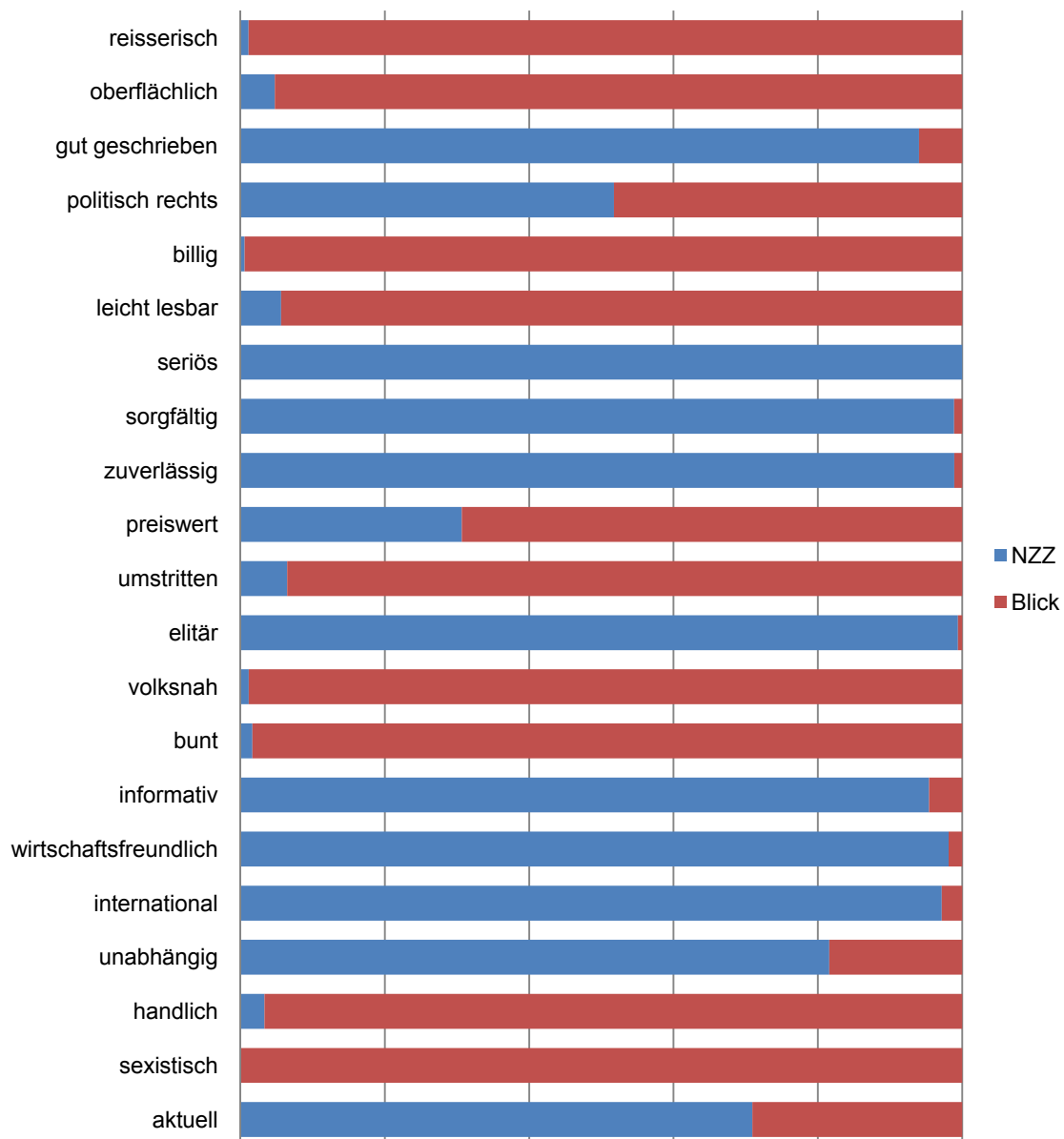


Figure 15: Assignments of image attributes to *Blick* and *NZZ*.

Note. Participants ($N = 29$) were asked to assign each of the attributes to either one of the two newspapers.

6.1.2 Second Pilot Study: Product Ratings of Blick and NZZ

Product Ratings and Usage of Blick and NZZ. Product Ratings Differ Significantly on all Dimensions. Usage is Considered Very low for Blick and low for NZZ.

	<i>Blick</i>	<i>NZZ</i>
Lesehäufigkeit		
<i>Täglich</i>	2	3
<i>2-3x pro Woche</i>	3	11
<i>1x pro Woche</i>	4	13
<i>Alle 2 Wochen</i>	5	7
<i>mehr als 1x pro Monat</i>	26	19
<i>gar nie</i>	25	12

Bewertung der Themen¹

1 = sehr stark, 5 = sehr schwach

<i>Wirtschaft</i>	3.35	1.32
<i>Sport</i>	1.48	3.28
<i>Promis</i>	1.45	3.70

Journalistische Leistung¹

1 = trifft voll und ganz zu

5 = trifft überhaupt nicht zu

<i>stilsicher</i>	3.30	1.75
<i>sachlich</i>	3.88	1.62
<i>seriös</i>	3.88	1.34
<i>leserfreundlich</i>	1.85	2.83

Bewertung Inhalt¹

1 = trifft voll und ganz zu

5 = trifft überhaupt nicht zu

<i>unterhaltend</i>	1.83	3.02
<i>glaubwürdig</i>	3.63	1.43
<i>informativ</i>	3.20	1.38
<i>international</i>	3.20	1.45
<i>hohe Qualität</i>	3.93	1.26

Formale Kriterien¹

1 = sehr gut, 2 = sehr schlecht

<i>Handlichkeit</i>	1.73	3.04
<i>Lesbarkeit</i>	1.75	2.57

Note. ¹Mean values. All means differ at $p \leq .05$. $N = 65$, 58.8% male, 41.5% female, age $M = 26.2$

6.1.3 Stimuli for study 1

2 | Blick | DIENSTAG | 13. SEPTEMBER 2005 |

Handytarife Migros und Coop im Kampf um die Kunden

ZÜRICH. Mit welchem Anbieter telefoniert man am günstigsten? Einen Tag vor dem Start der Mobilfunk-Produkte von Coop und Migros kamen die Preise kurzzeitig ins Rutschen.

Angestossen wurde die Preistrunde vom Prepaid-Paket M-Budget-Mobile. Mit diesem ab sofort verfügbaren Angebot kostete ein Handygespräch gestern

Montagnachmittag zunächst 48 Rappen pro Minute. Doch konnte Migros die Preisführerschaft nicht lange halten: Unmittelbar nach bekannt werden des M-Budget-Preises gab **Coop bekannt, sein Prix-Garantie-Abo für 46 Rappen anzubieten**. Offenbar hat man beim Konkurrenten ganz bewusst gewartet, bis die Migros ihre Preise veröffentlichte. Wenig später hiess es wiederum von der Migros, sie sei mit ihrem Partner Swisscom im Gespräch um

eine nochmalige Preissenkung. Offenkundig war man erfolgreich, denn zum Redaktionsschluss hatte die Migros wieder den günstigeren Tarif: 44 Rappen pro Minute.

Im internationalen Vergleich bleiben die Schweizer Minutenpreise trotzdem teuer. Gemäss dem Internetvergleichsdienst Comparis bezahlt man für das günstigste Angebot in Deutschland nur 30 Rappen, im Mobilfunk-Paradies Österreich gar nur 14 Rappen.

Figure 16: Stimulus *Blick* with layout.

20 Dienstag, 13. September 2005 · Nr. 210

Handytarife

Migros und Coop im Kampf um Kunden

chr. Zürich, 12. September

Mit welchem Anbieter telefoniert man am günstigsten? Einen Tag vor dem Start der Mobilfunk-Produkte von Coop und Migros kamen die Preise kurzzeitig ins Rutschen. Angestossen wurde die Preistrunde vom Prepaid-Paket M-Budget-Mobile. Mit diesem ab sofort verfügbaren Angebot kostete ein Handygespräch gestern Montagnachmittag zunächst 48 Rappen pro Minute. Doch konnte Migros die Preisführerschaft nicht lange halten: Unmittelbar nach bekannt werden des M-Budget-Preises gab Coop bekannt, sein Prix-Garantie-Abo für 46 Rappen anzubieten. Offenbar hat man beim Konkurrenten ganz bewusst gewartet, bis die Migros ihre Preise veröffentlichte. Wenig später hiess es wiederum von der Migros, sie sei mit ihrem Partner Swisscom im Gespräch um eine nochmalige Preissenkung. Offenkundig war man erfolgreich, denn zum Redaktionsschluss hatte die Migros wieder den günstigeren Tarif: 44 Rappen pro Minute.

Im internationalen Vergleich bleiben die Schweizer Minutenpreise trotzdem teuer. Gemäss dem Internetvergleichsdienst Comparis bezahlt man für das günstigste Angebot in Deutschland nur 30 Rappen, im Mobilfunk-Paradies Österreich gar nur 14 Rappen.

Figure 17: Stimulus NZZ with layout.

Aus dem "Blick" vom Dienstag, 13. September 2005:

Handytarife

Migros und Coop im Kampf um die Kunden

Zürich. Mit welchem Anbieter telefoniert man am günstigsten? Einen Tag vor dem Start der Mobilfunk-Produkte von Coop und Migros kamen die Preise kurzzeitig ins Rutschen. Angestossen wurde die Preisrunde vom Prepaid-Paket M-Budget-Mobile. Mit diesem ab sofort verfügbaren Angebot kostete ein Handygespräch gestern Montagnachmittag zunächst 48 Rappen pro Minute. Doch konnte Migros die Preisführerschaft nicht lange halten: Unmittelbar nach bekannt werden des M-Budget-Preises gab Coop bekannt, sein Prix-Garantie-Abo für 46 Rappen anzubieten. Offenbar hat man beim Konkurrenten ganz bewusst gewartet, bis die Migros ihre Preise veröffentlichte. Wenig später hiess es wiederum von der Migros, sie sei mit ihrem Partner Swisscom im Gespräch um eine nochmalige Preissenkung. Offenkundig war man erfolgreich, denn zum Redaktionsschluss hatte die Migros wieder den günstigeren Tarif: 44 Rappen pro Minute.

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Figure 18: Stimulus Blick without layout.

Aus der "NZZ" vom Dienstag, 13. September 2005:

Handytarife

Migros und Coop im Kampf um die Kunden

Zürich. Mit welchem Anbieter telefoniert man am günstigsten? Einen Tag vor dem Start der Mobilfunk-Produkte von Coop und Migros kamen die Preise kurzzeitig ins Rutschen. Angestossen wurde die Preisrunde vom Prepaid-Paket M-Budget-Mobile. Mit diesem ab sofort verfügbaren Angebot kostete ein Handygespräch gestern Montagnachmittag zunächst 48 Rappen pro Minute. Doch konnte Migros die Preisführerschaft nicht lange halten: Unmittelbar nach bekannt werden des M-Budget-Preises gab Coop bekannt, sein Prix-Garantie-Abo für 46 Rappen anzubieten. Offenbar hat man beim Konkurrenten ganz bewusst gewartet, bis die Migros ihre Preise veröffentlichte. Wenig später hiess es wiederum von der Migros, sie sei mit ihrem Partner Swisscom im Gespräch um eine nochmalige Preissenkung. Offenkundig war man erfolgreich, denn zum Redaktionsschluss hatte die Migros wieder den günstigeren Tarif: 44 Rappen pro Minute.

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Figure 19: Stimulus NZZ without layout.

Handytarife**Migros und Coop im Kampf um die Kunden**

Zürich. Mit welchem Anbieter telefoniert man am günstigsten? Einen Tag vor dem Start der Mobilfunk-Produkte von Coop und Migros kamen die Preise kurzzeitig ins Rutschen. Angestossen wurde die Preistrunde vom Prepaid-Paket M-Budget-Mobile. Mit diesem ab sofort verfügbaren Angebot kostete ein Handygespräch gestern Montagnachmittag zunächst 48 Rappen pro Minute. Doch konnte Migros die Preisführerschaft nicht lange halten: Unmittelbar nach bekannt werden des M-Budget-Preises gab Coop bekannt, sein Prix-Garantie-Abo für 46 Rappen anzubieten. Offenbar hat man beim Konkurrenten ganz bewusst gewartet, bis die Migros ihre Preise veröffentlichte. Wenig später hiess es wiederum von der Migros, sie sei mit ihrem Partner Swisscom im Gespräch um eine nochmalige Preissenkung. Offenkundig war man erfolgreich, denn zum Redaktionsschluss hatte die Migros wieder den günstigeren Tarif: 44 Rappen pro Minute.

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Figure 20: Stimulus control group.

6.1.4 E-Mail Invitations for study I

Initial E-Mail Invitation:

Subject: 10 Minuten für besseres Medienverständnis

Liebe Kollegin, lieber Kollege

Wer wüsste besser als Du, wie Zeitungsartikel auf Dich wirken?
Daher haben wir eine kurze Online-Umfrage für Dich parat, die sich genau mit dieser Frage befasst.

In knapp 10 Minuten leistest Du einen wertvollen Beitrag für die Erforschung der Medienwirkung, welche wir am Lehrstuhl Sozial- und Wirtschaftspsychologie (Prof. Jonas) betreiben - und lernst dabei gleich das neuste und beste Open-Source Umfragetool kennen!

Hier geht's direkt zur Umfrage:

<http://www.psychologie.unizh.ch/sowi/umfrage/>

Falls Du mitmachst: Herzlichen Dank!

Viele Grüße
Christian Fichter

(Bitte Weiterleiten an Medien-Interessierte, Freunde, Bekannte, Verwandte!)

Follow-up E-Mail Invitation:

Subject: 10 Minuten für besseres Medienverständnis

Liebe Kolleginnen und Kollegen

Aufgrund des überwältigenden (!) Rücklaufs habe ich mich entschieden, die Umfrage "Medienwirkung" nur noch bis Ende zweite Semesterwoche laufen zu lassen. Ich danke allen, die teilgenommen oder das Einladungsmail (siehe unten) weitergeleitet haben, ganz herzlich!

Falls Du noch teilnehmen möchtest, gerne! Hier der Link:
<http://www.psychologie.unizh.ch/sowi/umfrage/>

Mit den besten Wünschen für den Semesteranfang,
Christian Fichter

----- Original-Nachricht -----

Betreff: 10 Minuten für besseres Medienverständnis

Datum: Thu, 29 Sep 2005 15:51:56 +0200

Von: Christian Fichter <c.fichter@psychologie.unizh.ch>

An: psychstudi_1@id.unizh.ch

Liebe Kollegin, lieber Kollege

Wer wüsste besser als Du, wie Zeitungsartikel auf Dich wirken?
Daher haben wir eine kurze Online-Umfrage für Dich parat, die sich genau mit dieser Frage befasst.

In knapp 10 Minuten leistest Du einen wertvollen Beitrag für die Erforschung der Medienwirkung, welche wir am Lehrstuhl Sozial- und Wirtschaftspsychologie (Prof. Jonas) betreiben - und lernst dabei gleich das neuste und beste Open-Source Umfragetool kennen!

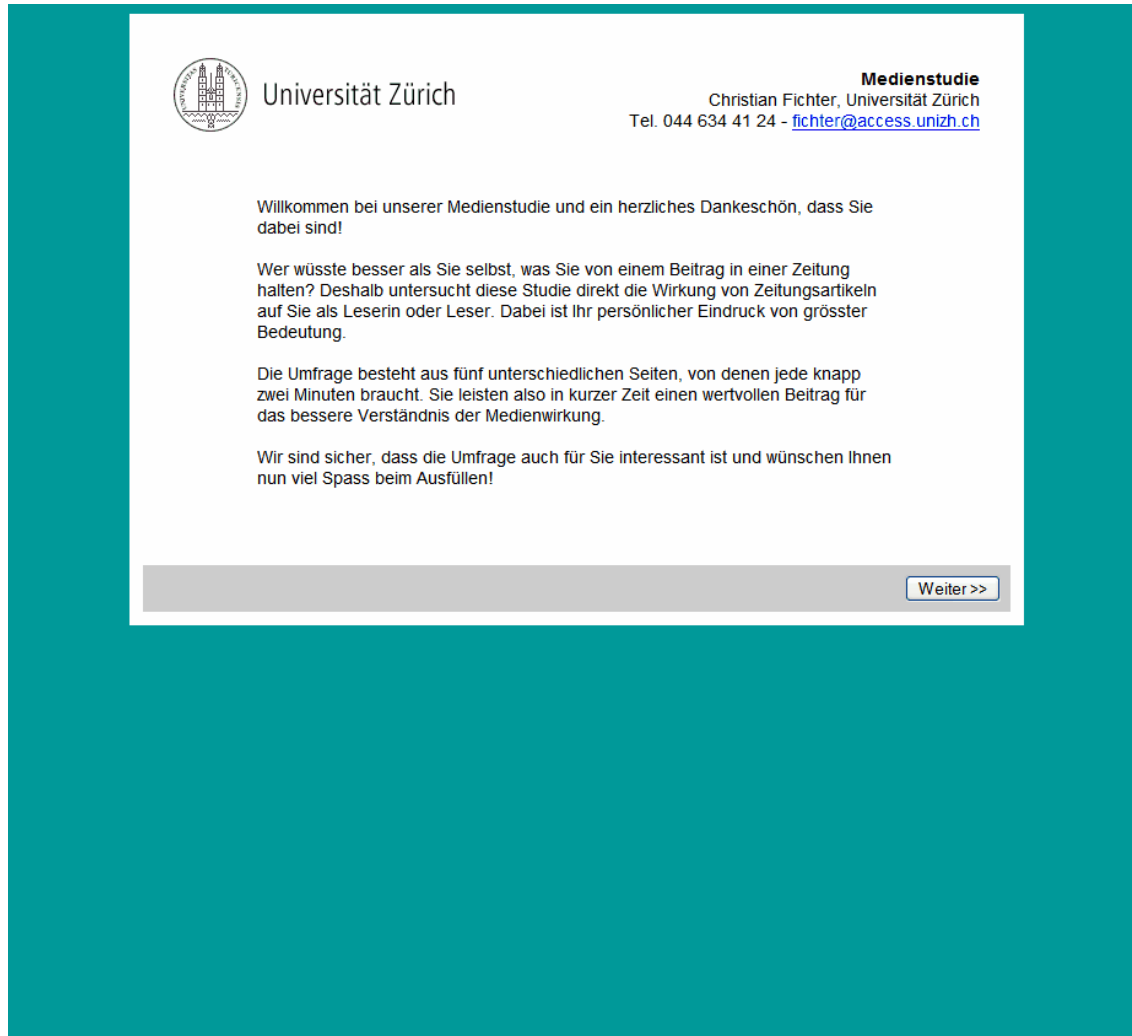
Hier geht's direkt zur Umfrage:
<http://www.psychologie.unizh.ch/sowi/umfrage/>


Falls Du mitmachst: Herzlichen Dank!

Viele Grüsse
Christian Fichter

(Bitte Weiterleiten an Medien-Interessierte, Freunde, Bekannte, Verwandte!)

6.1.5 Online Survey for Study 1



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Willkommen bei unserer Medienstudie und ein herzliches Dankeschön, dass Sie dabei sind!


Wer würde besser als Sie selbst, was Sie von einem Beitrag in einer Zeitung halten? Deshalb untersucht diese Studie direkt die Wirkung von Zeitungsartikeln auf Sie als Leserin oder Leser. Dabei ist Ihr persönlicher Eindruck von grösster Bedeutung.

Die Umfrage besteht aus fünf unterschiedlichen Seiten, von denen jede knapp zwei Minuten braucht. Sie leisten also in kurzer Zeit einen wertvollen Beitrag für das bessere Verständnis der Medienwirkung.

Wir sind sicher, dass die Umfrage auch für Sie interessant ist und wünschen Ihnen nun viel Spass beim Ausfüllen!

Weiter >>

Figure 21: Page 1 of online survey.



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Seite 1 von 5

Zuerst bitten wir Sie für die Auswertung der Umfrage um einige Angaben zu Ihrer Person.
 Wir behandeln Ihre Angaben streng vertraulich und garantieren für Ihre Anonymität.

Sind Sie ...

☐ männlich ☒ Keine Antwort
☐ weiblich

Bitte tragen Sie Ihr Alter ein:

Welches ist Ihr höchster Schulabschluss?

<input type="radio"/> Kein Abschluss	<input type="radio"/> Nachdiplomstudium	<input checked="" type="radio"/> Keine Antwort
<input type="radio"/> Primar- oder Grundschule	<input type="radio"/> Fachhochschule	
<input type="radio"/> Sekundar- oder Bezirksschule	<input type="radio"/> Hochschule / Universität	
<input type="radio"/> Berufslehre	<input type="radio"/> Promotion	
<input type="radio"/> Mittelschule / Gymnasium	<input type="radio"/> Sonstiges: <input style="width: 80px;" type="text"/>	

Ihr Beruf / Studienfach?

Falls Sie in der Schweiz leben: Wie lange schon?

<input type="radio"/> schon immer	<input type="radio"/> 2-4 Jahre
<input type="radio"/> > 20 Jahre	<input type="radio"/> 1 Jahr
<input type="radio"/> 10-19 Jahre	<input type="radio"/> < 1 Jahr
<input type="radio"/> 5-9 Jahre	<input checked="" type="radio"/> Keine Antwort

Figure 22: Page 2 of online survey.



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Seite 2 von 5

Bitte lesen Sie diesen NZZ-Artikel.

Lesen Sie einfach so, wie sie normalerweise lesen. Auf der nächsten Seite werden wir Sie dann fragen, wie sie den Artikel finden. Es geht also nicht um einen Wissenstest oder Ähnliches.

20

Dienstag, 13. September 2005 · Nr. 210

Handytarife

Migros und Coop im Kampf um Kunden

chr. Zürich, 12. September


Mit welchem Anbieter telefoniert man am günstigsten? Einen Tag vor dem Start der Mobilfunk-Produkte von Coop und Migros kamen die Preise kurzzeitig ins Rutschen. Angestossen wurde die Preistrunde vom Prepaid-Paket M-Budget-Mobile. Mit diesem ab sofort verfügbaren Angebot kostete ein Handygespräch gestern Montagmittag zunächst 48 Rappen pro Minute. Doch konnte Migros die Preisführerschaft nicht lange halten: Unmittelbar nach bekannt werden des M-Budget-Preises gab Coop bekannt, sein Prix-Garantie-Abo für 46 Rappen anzubieten. Offenbar hat man beim Konkurrenten ganz bewusst gewartet, bis die Migros ihre Preise veröffentlichte. Wenig später hiess es wiederum von der Migros, sie sei mit ihrem Partner Swisscom im Gespräch um eine nochmalige Preissenkung. Offenkundig war man erfolgreich, denn zum Redaktionsschluss hatte die Migros wieder den günstigeren Tarif: 44 Rappen pro Minute.

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<< Zurück

Weiter >>

Figure 23: Page 3 of online survey (NZZ condition).



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Bitte beurteilen Sie den gelesenen Blick-Artikel anhand der folgenden Fragen.
 Antworten Sie spontan und zügig. Bei Unsicherheiten wählen Sie einfach das am ehesten Zutreffende.

Ich finde den gelesenen Blick-Artikel ...

	überhaupt nicht	eher nicht	teils-teils	ja, eher	ja, völlig	Keine Antwort
gut	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
seriös	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
wahr	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
verständlich	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
aussagekräftig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
spannend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
schludrig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
oberflächlich	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
kompliziert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Was ist Ihre persönliche Meinung: Stimmen die folgenden Aussagen oder nicht?

	stimmt gar nicht	stimmt eher nicht	teils-teils	stimmt eher	stimmt völlig	Keine Antwort
Dieser Artikel ist typisch für den Blick	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Dieser Artikel ist ein Beispiel für guten Journalismus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Diesen Artikel hätte ich im Blick nicht erwartet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Nach dem Lesen dieses Artikels fühle ich mich ...

	überhaupt nicht	eher nicht	teils-teils	ja, eher	ja, völlig	Keine Antwort
gut informiert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
unterfordert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
genervt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
angeschwindelt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
gefordert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
für dumm verkauft	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Figure 24: Page 4 of online survey (upper part).

Wie gut kennen Sie sich beim Thema des gelesenen Artikels aus? (Handy-Tarife von Migros und Coop)

- ☐ sehr gut
- ☐ gut
- ☐ einigermaßen
- ☐ nicht so gut
- ☐ gar nicht
- ☒ Keine Antwort

Und wie sehr interessiert Sie dieses Thema?


- ☐ sehr
- ☐ ziemlich
- ☐ etwas
- ☐ wenig
- ☐ gar nicht
- ☒ Keine Antwort

Stellen Sie sich vor, Sie möchten eines der im Artikel vorgestellten Handy-Angebote kaufen. Genügt Ihnen der gelesene Blick-Artikel oder würden Sie weitere Informationen einholen?

- ☐ Artikel genügt völlig
- ☐ Artikel genügt mehrheitlich
- ☐ Weitere Infos sind eher notwendig
- ☐ Weitere Infos sind absolut notwendig
- ☒ Keine Antwort

Falls Sie möchten, können Sie hier Bemerkungen zum gelesenen Artikel machen:

Figure 25: Page 4 of online survey (lower part).



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Welche der vier im Kästchen 'Ihre Auswahl' aufgeführten Zeitungen mögen Sie am besten, welche am zweitbesten usw.?

Bitte klicken Sie im Kästchen 'Ihre Auswahl' zuerst auf das am höchsten bewertete Element und machen Sie dann weiter bis zum niedrigsten.

Ihre Auswahl:

Blick
 20 Minuten
 NZZ
 Tages-Anzeiger

Ihre Rangfolge:

1:

2:

3:

4:

Sie können das zuletzt hinzugefügte Element durch Klicken auf die Schere, die nach dem ersten Klick erscheint, wieder entfernen.

Wie oft lesen Sie diese Zeitungen?

	nie oder fast nie	selten	gelegentlich	häufig	täglich oder fast täglich	Keine Antwort
20 Minuten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Blick	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
NZZ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Tages-Anzeiger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Haben Sie eine (oder mehrere) dieser Zeitungen abonniert?

☐ Tages-Anzeiger

☐ NZZ

☐ Blick

Sonstiges:


Figure 26: Page 5 of online survey (upper part).

Letzte Frage: Bitte wählen Sie, ob die untenstehenden Beschreibungen am ehesten zum Blick oder zur NZZ passen.
Antworten Sie spontan und zügig. Bei Unsicherheiten wählen Sie einfach das am ehesten Zutreffende.

	Blick	NZZ	Keine Antwort
seriös	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
billig	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
zuverlässig	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
preiswert	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
leicht lesbar	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
politisch rechts	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
reisserisch	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
oberflächlich	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
gut geschrieben	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
sorgfältig	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
recherchiert	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
bunt	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
umstritten	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
handlich	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
sexistisch	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
aktuell	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
unabhängig	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
elitär	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
volksnah	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
international	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
informativ	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
wirtschaftsfreundlich	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

<< Zurück Weiter >>

Figure 27: Page 5 of online survey (lower part).

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Fast fertig! Wenn Sie möchten, wählen Sie bitte eine oder mehrere dieser Optionen aus.

☐ Ich möchte über die Resultate dieser Studie informiert werden.

☐ Ich möchte eventuell bei thematisch ähnlichen Studien teilnehmen.

☐ Ich möchte eventuell auch bei thematisch unterschiedlichen Online-Studien teilnehmen.

Falls Sie bei der vorherigen Frage etwas angekreuzt haben, so geben Sie bitte hier Ihre E-Mail-Adresse ein, damit wir Sie benachrichtigen können.

Wenn Sie möchten, können Sie hier einen Kommentar zu dieser Studie abgeben. Wir freuen uns über Ihre Anregungen und Hinweise und lassen diese gerne in Folgestudien einfließen.

Wie sorgfältig haben Sie diese Umfrage ausgefüllt?

☐ sorgfältig

☐ eher sorgfältig

☐ eher unsorgfältig

☐ unsorgfältig

☐ nur durchgeklickt

☒ Keine Antwort

<< Zurück

Weiter >

Figure 28: Page 6 of online survey.



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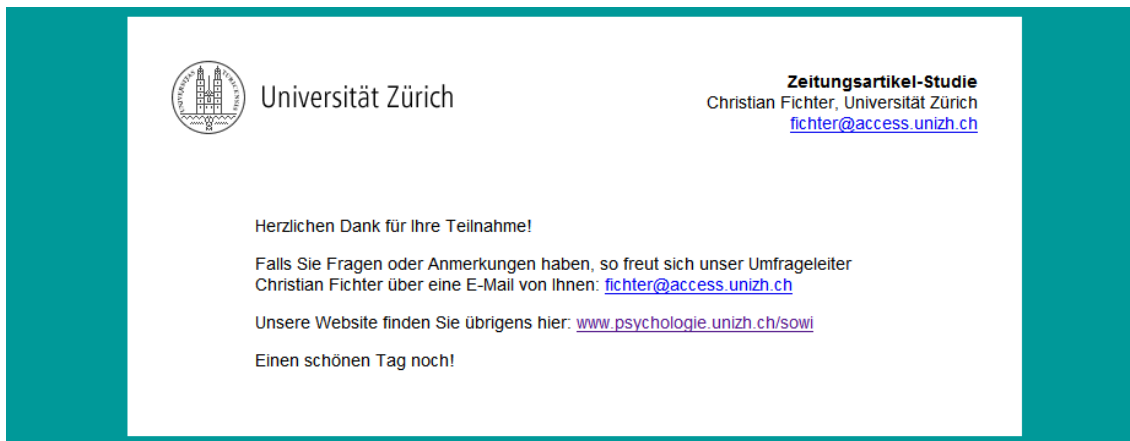
Vielen Dank!


Sie haben nun alle Fragen dieser Umfrage beantwortet.

Wichtig! Bitte schliessen Sie dieses Fenster noch nicht, sondern klicken Sie erst auf den 'Absenden'-Knopf, um diese Umfrage abzuschliessen.

Wenn Sie Ihre Antworten nochmal überprüfen oder ändern möchten, so klicken Sie bitte auf den Knopf 'Zurück', um durch Ihre Antworten zu blättern.

Figure 29: Page 7 of online survey.



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Zeitungsartikel-Studie
Christian Fichter, Universität Zürich
fichter@access.unizh.ch

Herzlichen Dank für Ihre Teilnahme!

Falls Sie Fragen oder Anmerkungen haben, so freut sich unser Umfrageleiter Christian Fichter über eine E-Mail von Ihnen: fichter@access.unizh.ch

Unsere Website finden Sie übrigens hier: www.psychologie.unizh.ch/sowi

Einen schönen Tag noch!

Figure 30: Page 8 of online survey.

6.1.6 Implications for Publishers

A mere look at the descriptive data on newspaper usage supports this study's findings of image having strong effects: Although the two products *20 Minuten* and *Blick* are pretty similar regarding style, layout, language and content, the latter is much less popular. As the results of the product ratings indicate, this is not only due to the fact that *20 Minuten* is free, but also because of the image of *Blick* is worse. The inferiority of *Blick's* image has been shown to prevail not only in relation to *NZZ*, but also when compared with the two other newspapers *Tages-Anzeiger* and *20 Minuten*. Looking at the unsatisfying economical position this brand is in, two recommendations may be directed at the publishers of *Blick*: It might be better to give away the product for free and gain all the profit from advertising alone. Then, a thoroughly designed and intensively conducted image campaign should be considered, as the reputation of *Blick* urgently needs substantial corrections and improvements.

Likewise, the existing data would allow for profound recommendations for the other three brands. This was not the main purpose of this study and therefore, they are only summarized. *NZZ* has successfully occupied the quality niche. In doing so, it has also established an elitist image. This may be useful in regards to maintaining an image of being one of the highest quality newspapers. At the same time, this limits usage rates. In any case, *NZZ* might try to complement its elitist image on the dimensions of readability and thrill, as the data suggest.

20 Minuten seems to do everything right. They have a strong market position, high usage and a positive image. They are advised to continue and "not change the running system". Concerning *Tages-Anzeiger*, observations indicate an image profile well between *Blick* and *NZZ*. As it has the second highest usage rate of all four newspapers evaluated, everything seems fine economically. As the publishers of *Tages-Anzeiger* have now acquired *20 Minuten*, it will be most interesting to see how the newspaper market evolves.

6.2 Appendix to Chapter 3

6.2.1 Pretest for Finding Image Attributes for Study 2

This pretest served to find the most relevant image attributes for the product rating scale that was used in study 2.

Beruflicher Hintergrund:	Beschäftigung mit dem Thema:
Alter:	Geschlecht:
Datum der Befragung:	

1. Einleitung (5min)

- Begrüssung des/ der Interviewpartners /-partnerin
- Bedanken für das Interview/ Mitmachen
- Kurzes Vorstellen der InterviewerIn
- Hinweis auf das Aufnahmegerät zu Dokumentationszwecken, Einholen des Einverständnisses
- Erklärung des Interviewablaufes
- Fragen nach Unklarheiten

Guten Tag Herr / Frau,

als Erstes möchten wir Ihnen danken, dass Sie sich Zeit genommen haben. Kurz zu unserer Person: Mein/ unser Name ist Caspar Coninx und Luisa Sirianni. Wir sind Studenten an der Universität Zürich. Im Rahmen unserer Lizentiatsarbeit werden wir Ihnen in den nächsten 20 min einige Fragen zur Telekommunikationsbranche, speziell zum Internetbereich, stellen. Vor Ihnen sehen Sie ein Aufnahmegerät, dies wird uns zu Dokumentationszwecken dienen, da wir vollständige Angaben gewährleisten wollen. Sind Sie damit einverstanden? Selbstverständlich werden alle von Ihnen gemachten Angaben absolut anonym behandelt, so dass kein Rückschluss auf Ihre Person möglich ist.

Figure 31: Page 1 of interviewer guidelines.

2. Analyse der Imagedimensionen der Telekommunikationsbranche im Internetbereich (10 min)

a) Denken Sie an die Telekommunikationsbranche, im Speziellen an das Internet.

- Was kommt Ihnen spontan in den Sinn? Dies können sprachliche oder bildliche Inhalte und Eindrücke sein.
- Kommen Ihnen noch weitere Aspekte in den Sinn?

Vielen Dank

Falls der/ die InterviewpartnerIn zögert und mit der Frage Probleme hat, werden „das Autobeispiel“ oder „die Frage zu Personeneigenschaften“ zur Hilfe genommen:

1. Ein Auto kann als *preiswert*, *sparsam*, *geräumig* oder *familienfreundlich* beurteilt werden. Dies sind sachhaltige Eigenschaften. Ein Auto kann aber auch als *langweilig*, *spiessig*, *elitär* bezeichnet werden. Bitte beziehen Sie sich bei Ihren Aussagen auf nicht-sachliche Eigenschaften, d.h. Eigenschaften, die in einem metaphorischen, übertragenen Sinn in Beziehung zum Subjekt stehen.
2. Stellen Sie sich das „Feld der Telekommunikation“ als Person vor. Wie würden Sie diese Person beschreiben?

Figure 32: Page 2 of interviewer guidelines.

b) Wir werden Ihnen nun einige Wörter nennen. Denken Sie nach wie vor an die Telekommunikationsbranche.

- Wie wichtig sind Ihnen folgende Eigenschaften bezüglich eines Internetanschlusses in der Telekommunikationsbranche?
Likertskala von 1 - 5 (1 = überhaupt nicht zutreffend / wichtig, 5 = sehr zutreffend / wichtig)

bodenständig	glamourös
familienfreundlich	anmutig
aufrichtig	technisch
ehrlich	fortschrittlich
förderlich	verlässlich
originär	intelligent
fröhlich	sicher
freundlich	gesellschaftlich
trendy	erfolgreich
aufregend	führend
lebhaft	elitär
cool	robust
jung	erfinderisch
einfallsreich	wagemutig
einzigartig	modern
up to date	zeitgemäss
unabhängig	transparent

- Kommen Ihnen noch weitere Aspekte in den Sinn?

Vielen Dank

Figure 33: Page 3 of interviewer guidelines.

c) Welche Internetanbieter kommen Ihnen spontan in den Sinn?

*d) Bei der letzten Frage handelt sich um ausgewählte sachliche Dienste/
Eigenschaften von Internetanbietern.*

- Bitte geben Sie uns an, welche Eigenschaften / Dienstleistungen Ihnen im Bereich des Internet wichtig sind. (Freie Aufzählung)

- Bitte geben Sie auf einer Likertskala von 1 - 5 (1 = überhaupt nicht wichtig, 5 = sehr wichtig) an, wie wichtig Ihnen folgende Felder sind:
 - Kundendienst, Technischer Support, E-Service (Webhilfe, FAQ, Handbücher & Anleitungen)
 - Leistungsvergleich zwischen den Angeboten
 - Variation der Produkte (Internet-Packages)
 - Mitgeliefertes Zubehör (Verbindungskabel, WLAN-Karte)
 - Möglichkeit einer Heiminstallation
 - Vielfalt des Anmeldeverfahrens
 - Vertragseigenschaften (Länge, Kündigungsfrist, etc.)
 - Lieferfristen
 - Sicherheit
 - Kompatibilität
 - Sponsoring der Unternehmen
 - Kunden werben Kunden

Vielen Dank

Figure 34: Page 4 of interviewer guidelines.

3. Abschluss (5min)

- Bedanken für das Interview/ Mitmachen
- Debriefing
- Nachfrage, ob noch neue Fragen aufgekommen sind
- Bei Interesse für die Studie: **E-Mail- Adresse:** _____
- Verabschiedung des/ der Interviewpartners/ -partnerin

Figure 35: Page 5 of interviewer guidelines.

Table 21

Transcripts of Pretest Interviews for Finding Relevant Image Attributes of Internet Provider Brands

Item	Interview 1	Interview 2	Interview 3	Interview 4	Interview 5
Demographie					
Beruflicher Hintergrund	Software Entwickler	Tänzerin	Student	Bankangestellter als User	Immobilienassistentin
Beschäftigung mit dem Thema	viel	nicht (kein Interesse & Wissen)	viel		wenig
Alter	35	22	31	28	62
Geschlecht	männlich	weiblich	männlich	männlich	weiblich
Ihr Internetanbieter	Green.ch	Cablecom	Sunrise	.	Econophone
Datum des Interviews	20. Novemver 20.00	20. Novemver 21.00	22. November 10.00	22.November 19.00	22.November 19.00
Imageitems (free listing)					
	Übersetzte Preise Nehmen es von den Lebendigen Ungeduldig Frustrierend trostlos Schlechter Service	global Technik Fortschritt Sex im Internet Soziale Verarmung übermenschlich nicht verstehen überfordert der beste Freund blau abhängig	trend modisch neu schnell gut praktisch	kalt rechnerisch kompliziert ärgerlich rätselhaft abgezogen	praktisch schnell nicht zuverlässig kommunikationsfördernd Information für sich selbst informationsgebend lustig nützlich im Ausland super
Brand personality (Aaker, 1997)					
bodenständig	1	1	2	2	1
familienfreundlich	1	1	5	4	4
aufrichtig	4	1	1	4	.
ehrlich	4	1	1	5	2
förderlich	3	3	4	3	4
originär	.	.	2	2	.
fröhlich	2	1	1	3	3
freundlich	4	2	3	4	3
trendy	2	3	2	1	2
aufregend	2	4	1	2	3
lebhaft	2	3	2	2	2
cool	2	1	2	2	1
jung	2	5	1	1	1
einfallsreich	3	4	3	3	5
einzigartig	2	1	1	1	3
up to date	5	5	5	2	5
unabhängig	4	1	5	3	4
glamurös	2	1	1	1	2
anmutig	1	1	4	1	2
technisch	4	5	1	2	3
fortschrittlich	4	5	4	3	3
verlässlich	5	2	5	5	4
intelligent	4	2	5	3	3
sicher	5	3	5	5	4
gesellschaftlich	2	5	4	1	5
erfolgreich	4	5	5	2	3
führend	3	5	3	2	2
elitär	3	.	1	1	2
robust	5	1	5	3	2
erfinderisch	4	2	2	2	3
wagemutig	2	1	2	2	3
modern	4	5	2	2	2
zeitgemäss	4	5	4	2	4
transparent	5	1	3	4	5
Internetanbieter (free listing)					
	Green.ch Cablecom Bluewin Sunrise	Bluewin Cablecom Sunrise	Sunrise Bluewin Tetecom	Cablecom Sunrise Bluewin Green.ch	Bluewin Econophone Tele2
Dienstleistungen (free listing)					
	zuverlässige Preise Zugang zu E-Mail funktioniert Sicherheit akzeptable Leistung	Werbung Marktkampf modem Hardware	Helpservice Transparenz neuer Stand	Redundanz günstig	Supportdienst Zuverlässigkeit Preis-Leistungsverhältnis
Dienstleistungen					
Kundendienst, Tech. Support	5	1	5	4	5
Leistungsvergleich	4	5	4	3	3
Variation der Produkte	.	1	3	1	2
Mitgeliefertes Zubehör	2	1	4	4	3
Heiminallation	2	5	5	1	4
Vielfalt des Anmeldeverfahrens	3	1	4	2	4
Vertragseigenschaften	3	3	3	3	3
Lieferfristen	4	1	4	3	3
Sicherheit	5	1	3	3	3
Sponsoring	2	1	2	1	3
Kompatibilität	3	1	4	4	4
Kunden werben Kunden	4	3	2	1	3

Note. Participants were asked to rate and characterize internet providers in free listing tasks and on five point Likert scales (1 = not at all, 5 = very much). See Figure 31 - Figure 35 for interviewer guidelines.

Table 21 (continued)

Transcripts of Pretest Interviews for Finding Relevant Image Attributes of Internet Provider Brands

Item	Interview 6	Interview 7	Interview 8	Interview 9	Interview 10
Demographie					
Beruflicher Hintergrund	Studentin	Studentin	Studentin	Headhunter	Studentin
Beschäftigung mit dem Thema	mässig	mässig	gar nicht	nein	wenig
Alter	26	26	28	28	32
Geschlecht	weiblich	weiblich	weiblich	männlich	weiblich
Ihr Internetanbieter	Cablecom	Bluewin	Green.ch	Cablecom	Bluewin
Datum des Interviews	22.November 21.00	22.November 21.00	21. November 21.00	21. November 22.00	23. November 8.00
Imageitems (free listing)					
	Internetverbindung Frieden Effizienz Dienstleistungsorientiert günstig zukunftsorientiert zufrieden rot	kommunikativ Freiheit zeitgebunden billig normal fad abhängig spontan Zeit verlieren	viele Anbieter kein Überblick falsche Versprechungen peinliche Werbung der Anbieter Notwendigkeit "Teeny-Server" spiessige Swisscom erreichbar sein	relativ teuer anonym sachlich unentbehrlich unproblematisch ubiquitär Pornographie gesichtslos wenig menschlich praktisch mühsam, bis es mal läuft Informationsflut Erreichbarkeit keine Gefühle nicht involviert	neu jung technisch hoher Standard Informationsflut ständige Erreichbarkeit unverzichtbar Arbeit Music-/Film-Download ermöglicht Kontakt zu viel Werbung CopyPaste - "Abschreiben"
Brand personality (Aaker, 1997)					
bodenständig	3	2	1	1	4
familienfreundlich	3	4	5	4	3
aufrichtig	4	5	5	3	4
ehrllich	5	5	5	4	4
förderlich	4	5	4	1	5
originär	.	.	4	1	4
fröhlich	3	3	3	1	3
freundlich	4	4	3	5	3
trendy	4	3	2	1	4
aufregend	3	3	2	1	3
lebhaft	3	4	3	3	3
cool	2	3	3	3	3
jung	4	3	1	4	4
einfallsreich	4	5	5	5	4
einzigartig	4	3	4	1	3
up to date	5	5	5	5	5
unabhängig	5	5	5	3	4
glamourös	2	3	2	1	3
anmutig	2	2	2	1	3
technisch	5	.	2	1	4
fortschrittlich	5	5	4	5	5
verlässlich	5	5	5	5	4
intelligent	5	5	5	4	4
sicher	5	5	5	5	5
gesellschaftlich	4	4	5	4	4
erfolgreich	4	1	4	4	4
führend	4	3	2	1	4
elitär	1	1	2	1	3
robust	4	3	3	5	4
erfinderisch	4	5	4	5	4
wagemutig	4	4	3	2	3
modern	4	4	4	5	5
zeitgemäss	5	4	4	5	5
transparent	5	5	5	5	4
Internetanbieter (free listing)					
	Cablecom Bluewin	Bluewin	Bluewin Green.ch Cablecom	Cablecom Swisscom Sunrise	Bluewin Cablecom
Dienstleistungen (free listing)					
	Preis Geschwindigkeit 24 h Zugang	Hotline Hilfeprogramm Zugang zu Adressen Virusschutz E-Mail Service Suchmaschine	Email-Account Geschwindigkeit individuelle Produkte 24h Helpline werbefrei	guter technischer Support Geschwindigkeit "plug and play" Konvergenz mehr WLAN Zuverlässigkeit Kundendienst	24h Helpline Zuverlässige Verbindung Sicherheit, kein Spam
Dienstleistungen					
Kundendienst, Tech. Support	5	5	5	4	4
Leistungsvergleich	5	4	5	2	4
Variation der Produkte	4	3	2	1	3
Mitgeliefertes Zubehör	5	5	4	3	4
Heiminallation	5	5	4	5	4
Vielfalt des Anmeldeverfahrens	3	5	4	5	3
Vertragseigenschaften	5	5	5	4	4
Lieferfristen	5	.	4	5	4
Sicherheit	5	5	5	2	5
Sponsoring	3	2	4	4	3
Kompatibilität	.	2	4	5	3
Kunden werben Kunden	5	3	2	1	3

Note. Participants were asked to rate and characterize internet providers in free listing tasks and on five point Likert scales (1 = not at all, 5 = very much). See Figure 31 - Figure 35 for interviewer guidelines.

Table 21 (continued)

Transcripts of Pretest Interviews for Finding Relevant Image Attributes of Internet Provider Brands

Item	Interview 11	Interview 12	Interview 13	Interview 14	Interview 15
Demographie					
Beruflicher Hintergrund	Studentin	HR, Bank	Kommunikationsberater	Student	Lehrer
Beschäftigung mit dem Thema	mässig	wenig	mässig	wenig	viel
Alter	29	32	33	27	32
Geschlecht	weiblich	männlich	männlich	männlich	männlich
Ihr Internetanbieter	Sunrise	Green.ch	Bluewin	Cablecom	Cablecom
Datum des Interviews	20. November 22.00	20. November 21.00	20. November 20.00	21. November 20.00	23. November 13.00
Imageitems (free listing)					
	Ortsunabhängigkeit Kommunikation technisch zeitgemäss modern Notwendigkeit preiswert Informationsflut unpersönlich praktisch keine Seele Mittel zum Zweck Einsamkeit Spam kalt Schlüssel zu anderen Dingen	schnelle Info Wissen Pornografie Kurzlebigkeit, sehr vergänglich Anonymität Einsamkeit Informationsflut viel Schrott unübersichtlich rational global permanente Kommunikation zusammenführend Erreichbarkeit	Kommunikation Informationsflut fehlende Qualitätskontrolle Demokratie Erreichbarkeit Zeitmanagement Arbeit Freundin Einsamkeit anonym intransparent Werbung Massenmedium Pornografie unentbehrlich vielfältig schnelllebig	Kommunikation Informationsflut anonym intransparent Kriminalität Download Pornografie unübersichtlich technisch unpersönlich Einsamkeit zu teuer	wichtig schnell anhänglich vielseitig Geschäft Konkurrenz schnell teuer
Brand personality (Aaker, 1997)					
bodenständig	5	5	4	4	2
familienfreundlich	4	1	2	1	3
aufrichtig	5	1	3	4	2
ehrflich	5	1	3	4	2
förderlich	5	4	4	4	5
originär	3	1	4	4	.
fröhlich	4	1	1	2	3
freundlich	5	4	2	1	3
trendy	3	1	3	1	5
aufregend	2	1	3	2	5
lebhaft	4	1	4	1	4
cool	2	1	2	1	5
jung	1	1	2	1	4
einfallreich	4	2	5	4	4
einzigartig	3	1	3	3	3
up to date	5	5	5	5	5
unabhängig	5	4	5	5	4
glamourös	1	1	2	1	3
anmutig	1	1	2	1	2
technisch	3	3	3	3	5
fortschrittlich	4	4	5	4	5
verlässlich	5	5	5	5	4
intelligent	4	4	4	4	3
sicher	5	5	5	5	3
gesellschaftlich	5	1	2	1	4
erfolgreich	4	4	4	4	4
führend	4	4	4	3	3
eliär	1	1	1	1	3
robust	5	5	5	4	4
erfinderisch	4	5	5	5	2
wagemutig	4	3	2	3	4
modern	4	4	4	4	5
zeitgemäss	5	5	5	5	1
transparent	5	5	5	5	.
Internetanbieter (free listing)					
	Sunrise Cablecom Bluewin	Cablecom Swisscom Green.ch	Swisscom Cablecom Sunrise Green.ch Tele2	Cablecom Swisscom Green.ch	Solnet Green.ch Cablecom Sunrise Bluewin Tele2
Dienstleistungen (free listing)					
	Sicherheit Usability gutes PreisLeistungsverhältnis Helpline	Über Änderungen informiert sein Sicherheit kostengünstige Angebote Zusatzangebote, Rabatte Übersichtliche Homepage Helpline	technischer Support Bedienerfreundlichkeit Individuelles Produkt Geschwindigkeit Sicherheit	technischer Support regelmässige Information kein Werbemüll Datenschutz Sicherheit	Zuverlässigkeit Preis kein Downloadlimit einfache Installation Rechnungsabwicklung
Dienstleistungen					
Kundendienst, Tech. Support	5	4	5	5	4
Leistungsvergleich	5	5	4	4	5
Variation der Produkte	3	4	4	3	4
Mitgeliefertes Zubehör	4	4	3	3	4
Heiminstallation	4	5	3	3	1
Vielfalt des Anmeldeverfahrens	5	5	4	5	5
Vertragseigenschaften	4	4	4	4	4
Lieferfristen	5	4	5	4	5
Sicherheit	5	5	5	5	3
Sponsoring	5	4	2	2	4
Kompatibilität	5	5	5	2	5
Kunden werben Kunden	2	3	1	1	5

Note. Participants were asked to rate and characterize internet providers in free listing tasks and on five point Likert scales (1 = not at all, 5 = very much). See Figure 31 - Figure 35 for interviewer guidelines.

Table 21 (continued)

Transcripts of Pretest Interviews for Finding Relevant Image Attributes of Internet Provider Brands

Item	Interview 16	Interview 17	Interview 18	Interview 19
Demographie				
Beruflicher Hintergrund	Architekt	Studentin	Architekt	Studentin
Beschäftigung mit dem Thema	sehr gut	wenig	mässig	wenig
Alter	32	29	34	25
Geschlecht	männlich	weiblich	männlich	weiblich
Ihr Internetanbieter	Cablecom	Tele2	Bluewin	Sunrise
Datum des Interviews	24. Nov 06	24. November 23.00	25. November 11.00	25. November 18.00
Imageitems (free listing)				
	jung dynamisch schnell neu Technologie fortschrittlich	verbindend mühsam schnell Erreichbarkeit ist lästig Zugang zu Wissen zeitraubend zu technisch Informationsflut Virus himmelblau	Selbstverständlichkeit Grundversorgung E-Mail Service (Telefonbuch, Fahrplan) unverzichtbar zeitgemäss Mittel zum Zweck Datenaustausch Informationsflut Breitband-Internet ein Must Updates technisch	Grenzüberschreit. Kommunikation Informationsflut Aktualität einfacher Zugang zu Informationen jung schnell vielseitig unseriös wenig verlässlich unsicher Einsamkeit anonym virtuell revolutionär innovativ faszinierend unkontrolliert
Brand personality (Aaker, 1997)				
bodenständig	1	5	1	1
familienfreundlich	1	2	1	2
aufrichtig	3	5	3	4
ehrllich	3	5	3	4
förderlich	.	4	3	4
originär	.	2	1	2
fröhlich	.	2	1	2
freundlich	4	2	4	4
trendy	3	3	1	1
auffregend	1	2	1	1
lebhaft	1	4	1	1
cool	1	2	1	1
jung	1	4	1	1
einfallreich	4	5	2	3
einzigartig	1	5	1	2
up to date	5	5	5	5
unabhängig	1	2	4	3
glamourös	1	1	1	2
anmutig	.	1	1	4
technisch	1	5	3	3
fortschrittlich	5	5	5	4
verlässlich	5	5	5	5
intelligent	3	5	4	5
sicher	5	5	5	5
gesellschaftlich	.	3	4	3
erfolgreich	1	5	1	3
führend	5	5	1	1
elitär	1	2	1	3
robust	5	5	1	3
erfinderisch	4	4	1	3
wagemutig	1	2	1	1
modern	5	5	2	4
zeitgemäss	5	5	5	4
transparent	5	5	5	5
Internetanbieter (free listing)				
	Sunrise Bluewin Cablecom Green.ch Tiscali Datacom	Swisscom Cablecom Tele2	Swisscom Sunrise Cablecom	Swisscom Sunrise Cablecom
Dienstleistungen (free listing)				
	Technisches up to date Preis-Leistungsverhältnis Support Unkomplizierte Handhabung	Helpline guter Preis Ermässigung Telefonieren	Helpline Sicherheit Preis	Kundendienst techn. Support Sicherheit Zuverlässigkeit einwandfreies Funktionieren
Dienstleistungen				
Kundendienst, Tech. Support	5	4	5	5
Leistungsvergleich	2	3	2	1
Variation der Produkte	3	1	1	4
Mitgeliefertes Zubehör	1	2	1	1
Heiminstallation	1	5	1	1
Vielfalt des Anmeldeverfahrens	4	5	5	5
Vertragseigenschaften	4	5	3	5
Lieferfristen	4	5	4	5
Sicherheit	.	5	5	5
Sponsoring	1	1	2	5
Kompatibilität	5	5	2	2
Kunden werben Kunden	3	1	1	4

Note. Participants were asked to rate and characterize internet providers in free listing tasks and on five point Likert scales (1 = not at all, 5 = very much). See Figure 31 - Figure 35 for interviewer guidelines.

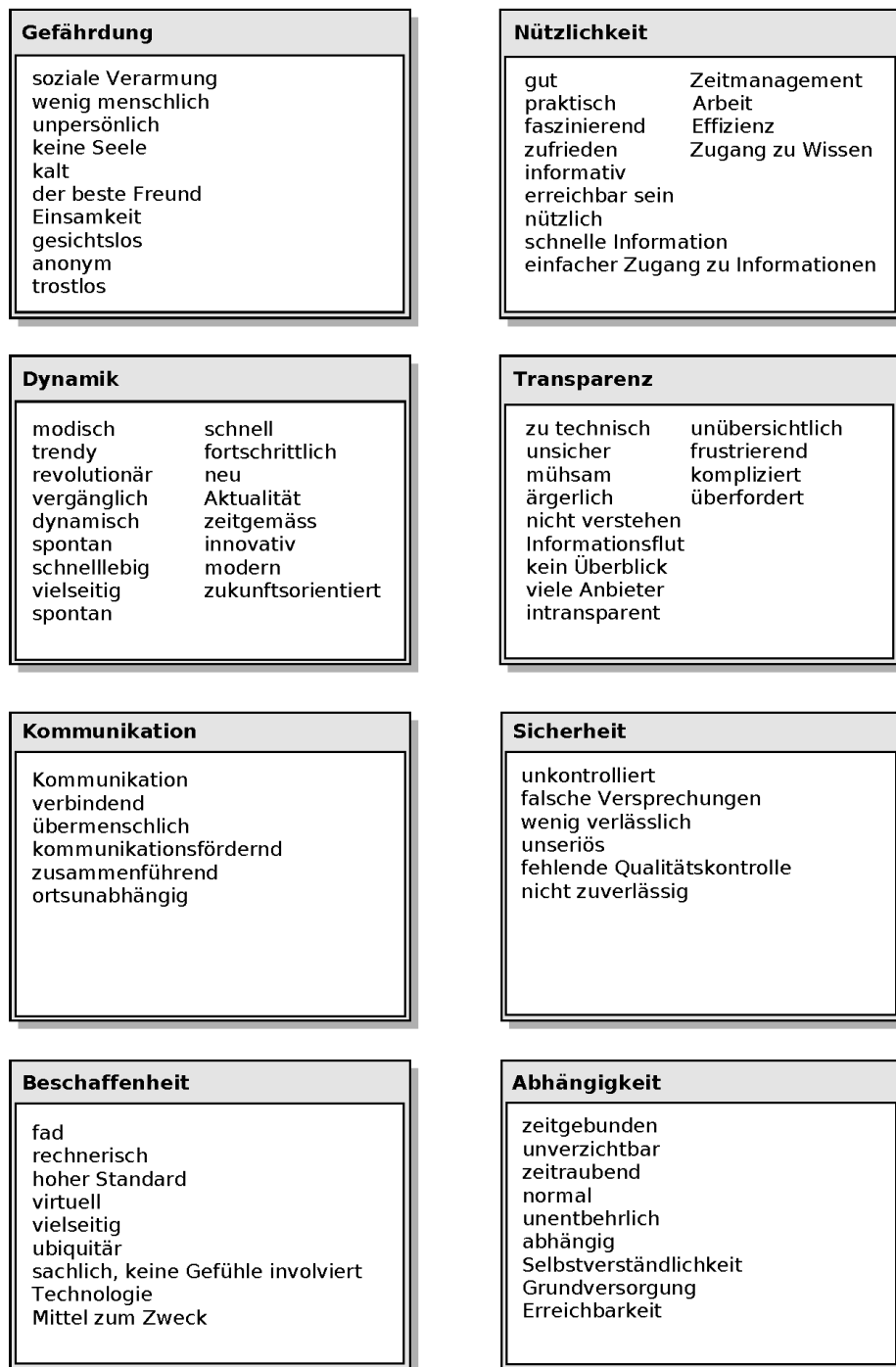
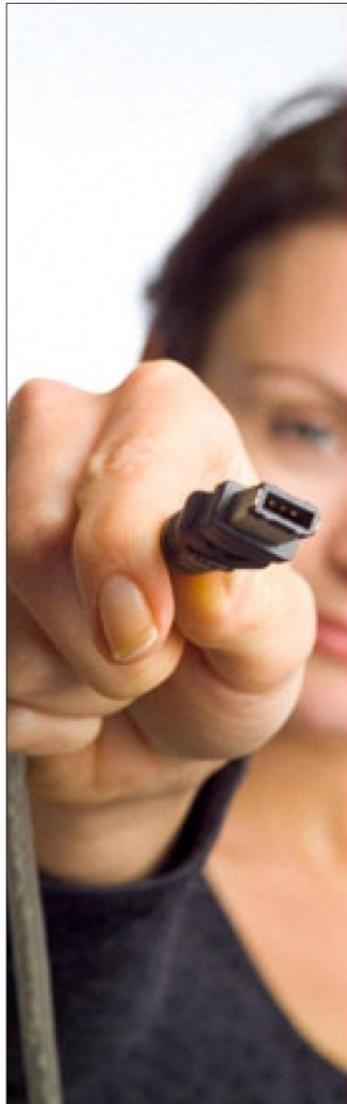


Figure 36: The most relevant image attributes and dimensions for rating internet providers' products as resulting from the interviews.

6.2.2 Stimuli for Study 2



cablecom
touch your worlds

Liebe Leserin, Lieber Leser

Mit Innovation und Investition trägt Cablecom dazu bei, Menschen, Unternehmen, Organisationen und Kulturen kommunikativ zu verbinden. Ob im Beruf oder privat, das Internet ist aus unserem Alltag nicht mehr wegzudenken. Wir wollen für unsere Geschäftspartner und Freunde zuverlässig erreichbar sein und jederzeit schnell auf Informationen im Netz zugreifen können.

Auch dieses Jahr setzt Cablecom neue Standards. Urs Bühmann, Head of Sales & Marketing: „Unser Entwicklungsteam ist sehr erfreut, myNet® vorstellen zu dürfen. Eine neue, anwenderfreundliche Lösung im Breitband-Internet Markt.“ Ausserdem werde man alles tun, um Funktionalität, Anspruch und Nutzeroptimierung weiter zu erhöhen, so Urs Bühmann weiter.

Damit bietet die Cablecom, was Sie von einem modernen Internetanbieter erwarten: ein gutes Preis-Leistungs-Verhältnis und ein transparentes Gebührens-system. Das hohe Mass an Sicherheit sowie die Zusatznutzen der Service Packages überzeugen. Technisch weniger versierte Kunden profitieren von einem ausgezeichneten Support.

Schön, dass Sie auch im neuen Jahr sicher mit Cablecom online sind.

myNet® Spass beim täglichen surfen

myNet® – das heisst: Sie downloaden monatlich unlimitiert Daten mit hoher Geschwindigkeit. Sie nutzen bis zu 10 E-Mail-Adressen mit integriertem Spamfilter und verschicken 30 SMS gratis. Zusätzlich ist ihr Computer mit einer Anti-Virus und Firewall-Software geschützt. Eine private Homepage und ein Online-Album (für Ihre Fotos, Videos und MP3-Dateien) ermöglichen es Ihnen, kreativ zu sein. Und dies alles für nur CHF 39.- pro Monat. Aufschaltgebühren und Modemmierte schenken wir Ihnen.

Figure 37: Stimulus Cablecom.

Liebe Leserin, Lieber Leser

Mit Innovation und Investition trägt Sunrise dazu bei, Menschen, Unternehmen, Organisationen und Kulturen kommunikativ zu verbinden. Ob im Beruf oder privat, das Internet ist aus unserem Alltag nicht mehr wegzudenken. Wir wollen für unsere Geschäftspartner und Freunde zuverlässig erreichbar sein und jederzeit schnell auf Informationen im Netz zugreifen können.

Auch dieses Jahr setzt Sunrise neue Standards. Urs Bühlmann, Head of Sales & Marketing: „Unser Entwicklungsteam ist sehr erfreut, myNet[®] vorstellen zu dürfen. Eine neue, anwenderfreundliche Lösung im Breitband-Internet Markt.“ Ausserdem werde man alles tun, um Funktionalität, Anspruch und Nutzeroptimierung weiter zu erhöhen, so Urs Bühlmann weiter.

Damit bietet die Sunrise, was Sie von einem modernen Internetanbieter erwarten: ein gutes Preis-Leistungs-Verhältnis und ein transparentes Gebührensystem. Das hohe Mass an Sicherheit sowie die Zusatznutzen der Service Packages überzeugen. Technisch weniger versierte Kunden profitieren von einem ausgezeichneten Support.

Schön, dass Sie auch im neuen Jahr sicher mit Sunrise online sind.



myNet[®]: Spass beim täglichen surfen!



myNet[®] – das heisst: Sie downloaden monatlich unlimitiert Daten mit hoher Geschwindigkeit. Sie nutzen bis zu 10 E-Mail-Adressen mit integriertem Spamfilter und verschicken 30 SMS gratis.

Zusätzlich ist ihr Computer mit einer Anti-Virus und Firewall-Software geschützt. Eine private Homepage und ein Online-Album (für Ihre Fotos, Videos und MP3-Dateien) ermöglichen es Ihnen, kreativ zu sein. Und dies alles für nur CHF 39.- pro Monat. Aufschaltgebühren und Modemmierte schenken wir Ihnen.

internet

Figure 38: Stimulus Sunrise.



my net[®]
Spass beim täglichen surfen

myNet[®] – das heisst: Sie downloaden monatlich unlimited Daten mit hoher Geschwindigkeit. Sie nutzen bis zu 10 E-Mail-Adressen mit integriertem Spamfilter und verschicken 30 SMS gratis. Zusätzlich ist ihr Computer mit einer Anti-Virus und Firewall-Software geschützt. Eine private Homepage und ein Online-Album (für Ihre Fotos, Videos und MP3-Dateien) ermöglichen es Ihnen, kreativ zu sein. Und dies alles für nur CHF 39.- pro Monat. Aufschaltgebühren und Modemmierte schenken wir Ihnen.

Liebe Leserin, Lieber Leser

Mit Innovation und Investition trägt Swisscom dazu bei, Menschen, Unternehmen, Organisationen und Kulturen kommunikativ zu verbinden. Ob im Beruf oder privat, das Internet ist aus unserem Alltag nicht mehr wegzudenken. Wir wollen für unsere Geschäftspartner und Freunde zuverlässig erreichbar sein und jederzeit schnell auf Informationen im Netz zugreifen können.

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Damit bietet die Swisscom, was Sie von einem modernen Internetanbieter erwarten: ein gutes Preis-Leistungs-Verhältnis und ein transparentes Gebührensystem. Das hohe Mass an Sicherheit sowie die Zusatznutzen der Service Packages überzeugen. Technisch weniger versierte Kunden profitieren von einem ausgezeichneten Support.

Schön, dass Sie auch im neuen Jahr sicher mit Swisscom online sind.

swisscom **fixnet**
Einfach verbunden.

Figure 39: Stimulus Swisscom.

LIEBE LESERIN, LIEBER LESER

Mit Innovation und Investition tragen wir als Internetanbieter dazu bei, Menschen, Unternehmen, Organisationen und Kulturen kommunikativ zu verbinden. Ob im Beruf oder privat, das Internet ist aus unserem Alltag nicht mehr wegzudenken. Wir wollen für unsere Geschäftspartner und Freunde zuverlässig erreichbar sein und jederzeit schnell auf Informationen im Netz zugreifen können.

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Damit bieten wir, was Sie von einem modernen Internetanbieter erwarten: ein gutes Preis-Leistungs-Verhältnis und ein transparentes Gebührensystem. Das hohe Mass an Sicherheit sowie die Zusatznutzen der Service Packages überzeugen. Technisch weniger versierte Kunden profitieren von einem ausgezeichneten Support.

Schön, dass Sie auch im neuen Jahr sicher mit uns online sind.

myNet® SPASS BEIM TÄGLICHEN SURFEN

myNet® – das heisst: Sie downloaden monatlich unlimitiert Daten mit hoher Geschwindigkeit. Sie nutzen bis zu 10 E-Mail-Adressen mit integriertem Spamfilter und verschicken 30 SMS gratis. Zusätzlich ist ihr Computer mit einer Anti-Virus und Firewall-Software geschützt. Eine private Homepage und ein Online-Album (für Ihre Fotos, Videos und MP3-Dateien) ermöglichen es Ihnen, kreativ zu sein. Und dies alles für nur CHF 39.- pro Monat. Aufschaltgebühren und Modemmierte schenken wir Ihnen.



Figure 40: Stimulus no-name.

6.2.3 *E-Mail Invitation*

Liebe Mitstudentin
Lieber Mitstudent

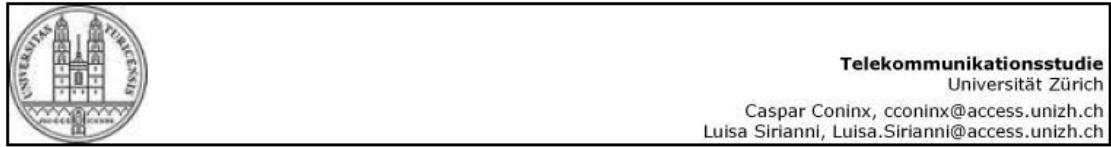
Hast Du Dir schon überlegt, wie Kundenzeitschriften unsere Einstellung gegenüber Produkten beeinflussen? Einerseits sollen sie informieren, andererseits ist es auch immer Werbung in eigener Sache - eine heikle Gratwanderung.

Im Rahmen unserer Lizentiatsarbeit untersuchen wir die Wirkung von Informationen aus Kundenzeitschriften der Telekommunikationsbranche auf Dich als Leserin oder Leser. Deine Teilnahme an unserer Online-Befragung würde uns sehr freuen! Das Ausfüllen dauert ca. 10 Minuten. Du findest den Online-Fragebogen hier:

<http://www.unipark.de/uc/telekommunikationsstudie07>

Herzlichen Dank!

6.2.4 Online Survey Study 2



Willkommen bei unserer Studie und herzlichen Dank, dass Sie dabei sind!

Sicher benutzen auch Sie das Internet. Die Nachfrage nach höheren Übertragungsraten und die Produktvielfalt nehmen ständig zu – das Resultat sind viele verschiedene Anbieter und Angebote auf dem Markt, welche den Konsumenten zur Auswahl stehen.

Mit dieser Umfrage erheben wir die Wirkung von Informationen aus Kundenzeitschriften der Telekommunikationsbranche auf Sie als Leserin oder Leser. Dabei ist Ihr persönlicher Eindruck von grösster Bedeutung – unabhängig davon, ob Sie sich mit dieser Thematik schon auskennen.

Die Umfrage besteht aus 9 Seiten, von denen jede etwa eine Minute in Anspruch nimmt. Alle Angaben werden selbstverständlich anonym und ausschliesslich zu wissenschaftlichen Zwecken ausgewertet. Wir sind sicher, dass es auch für Sie interessant ist und wünschen Ihnen nun viel Spass beim Ausfüllen!

Weiter

Figure 41: Page 1 of online survey.



Bitte lesen Sie den folgenden Ausschnitt aus der **Kundenzeitschrift der Cablecom**.

Lesen Sie einfach so, wie Sie normalerweise lesen. Auf der nächsten Seite werden wir Sie fragen, wie Sie den Ausschnitt aus der Kundenzeitschrift finden.

cablecom
touch your worlds

Liebe Leserin, Lieber Leser

Mit Innovation und Investition trägt Cablecom dazu bei, Menschen, Unternehmen, Organisationen und Kulturen kommunikativ zu verbinden. Ob im Beruf oder privat, das Internet ist aus unserem Alltag nicht mehr wegzudenken. Wir wollen für unsere Geschäftspartner und Freunde zuverlässig erreichbar sein und jederzeit schnell auf Informationen im Netz zugreifen können.

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Damit bietet die Cablecom, was Sie von einem modernen Internetanbieter erwarten: ein gutes Preis-Leistungs-Verhältnis und ein transparentes Gebührens-system. Das hohe Mass an Sicherheit sowie die Zusatznutzen der Service Packages überzeugen. Technisch weniger versierte Kunden profitieren von einem ausgezeichneten Support.

Schön, dass Sie auch im neuen Jahr sicher mit Cablecom online sind.

myNet® Spass beim täglichen surfen

myNet® – das heisst: Sie downloaden monatlich unlimitiert Daten mit hoher Geschwindigkeit. Sie nutzen bis zu 10 E-Mail-Adressen mit integriertem Spamfilter und verschicken 30 SMS gratis. Zusätzlich ist ihr Computer mit einer Anti-Virus und Firewall-Software geschützt. Eine private Homepage und ein Online-Album (für Ihre Fotos, Videos und MP3-Dateien) ermöglichen es Ihnen, kreativ zu sein. Und dies alles für nur CHF 39.- pro Monat. Aushaltgebühren und Modemmiere schenken wir Ihnen.

Figure 42: Page 2 of online survey.

**Telekommunikationsstudie**

Universität Zürich

Caspar Coninx, cconinx@access.unizh.ch
Luisa Sirianni, Luisa.Sirianni@access.unizh.ch

Bitte beurteilen Sie das Gelesene anhand der folgenden Fragen. Antworten Sie spontan und zügig. Bei Unsicherheiten wählen Sie bitte einfach das am ehesten Zutreffende.

Wie finden Sie das in der Broschüre beschriebene Produkt ganz allgemein?

schlecht ☐ ☐ ☐ ☐ ☐ ☐ ☐ gut

Das Produkt der Cablecom, über welches die Broschüre berichtet, finde ich ...

	trifft überhaupt nicht zu						trifft vollständig zu	keine Antwort
dynamisch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
kompliziert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
unverlässlich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
technisch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
unverzichtbar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
modern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
kommunikationsfördernd	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
unseriös	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Und wie finden Sie das Produkt der Cablecom hinsichtlich der folgenden Eigenschaften?

	trifft überhaupt nicht zu						trifft vollständig zu	keine Antwort
fortschrittlich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
informativ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
unpersönlich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
rational	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
kommunikativ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
transparent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
nützlich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
notwendig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


Figure 43: Page 3 (upper part) of online survey.

Das Produkt der Cablecom, über welches die Broschüre berichtet, ist ...								
	trifft überhaupt nicht zu						trifft vollständig zu	keine Antwort
preiswert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
verbindend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
unübersichtlich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
praktisch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sicher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
robust	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ehrlich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
kalt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Das Produkt der Cablecom finde ich ...								
	trifft überhaupt nicht zu						trifft vollständig zu	keine Antwort
... typisch für Cablecom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... ein gutes Beispiel für ein Produkt eines Internetanbieters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Weiter

Figure 44: Page 3 of online survey (lower part).

	<div style="text-align: right;"> Telekommunikationsstudie Universität Zürich Caspar Coninx, cconinx@access.unizh.ch Luisa Sirianni, Luisa.Sirianni@access.unizh.ch </div>
---	---

Wie schätzen Sie Ihr Wissen bezüglich des Gelesenen ein ...								
	sehr schlecht						sehr gut	keine Antwort
...verglichen mit Ihrem Bekanntenkreis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...verglichen mit Experten?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...verglichen mit dem durchschnittlichen Konsumenten?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Bitte vergegenwärtigen Sie sich nun ganz allgemein Produkte von Internetanbietern.								
	sehr schlecht						sehr gut	keine Antwort
Wie schätzen Sie Ihr Wissen bezüglich der Anwendung dieser Produkte ein?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wie schätzen Sie Ihre Fähigkeit, diese Produkte zu beurteilen, ein?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wie gut kennen Sie sich mit den verschiedenen Eigenschaften und Funktionen dieser Produkte aus?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 45: Page 4 of online survey (upper part).

Bitte überprüfen Sie folgende Aussagen auf ihre Richtigkeit. Bei Unsicherheiten wählen Sie die Option „ich weiss es nicht“.			
	richtig	falsch	ich weiss es nicht
Bps ist die Abkürzung für „Bits Per System“.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RAM bezeichnet den permanenten Speicher eines Computers, der zum Speichern von Dateien verwendet wird.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ein Dialer ist ein Einwählprogramm, welches die Möglichkeit bietet, gratis Inhalte übers Internet zu beziehen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die effektiv zur Verfügung stehende Bandbreite bei ADSL-Anschlüssen hängt auch von der Entfernung zwischen dem Standort des ADSL-Anschlusses und der Swisscom Zentrale ab.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Es existieren generell zwei verschiedene Arten von Firewalls: Hardware-Firewalls und Software-Firewalls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Bitte überprüfen Sie folgende Aussagen auf ihre Richtigkeit. Bei Unsicherheiten wählen Sie die Option „ich weiss es nicht“.			
	richtig	falsch	ich weiss es nicht
POP ist die Abkürzung für „Post Office Protocol“; das Protokoll, mit dem das Mailprogramm die E-Mails vom Mailserver abholt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DFÜ ist die Abkürzung für „Digitale Fernseh-Übertragung“ und bezeichnet die Möglichkeit, Fernsehprogramme direkt im Browser anzuschauen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die technischen Voraussetzungen für Internet per Fernsehkabel sind Telefonanschluss, Internetabonnement bei einem Provider und ein Modem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flat-Rate ist die Bezeichnung für eine Gebührenstruktur, die nur aus einem monatlichen Grundbeitrag besteht, ohne zusätzliche Berechnung der Online-Stunden und Datenmenge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Weiter

Figure 46: Page 4 of online survey (lower part).



Telekommunikationsstudie
Universität Zürich

Caspar Coninx, cconinx@access.unizh.ch
Luisa Sirianni, Luisa.Sirianni@access.unizh.ch

Bitte denken Sie erneut an Produkte und Angebote von Internetanbietern. Beurteilen Sie folgende Aussagen spontan und zügig, auch wenn Sie das Gefühl haben, dass die Aussagen ähnlich sind.

Sich mit dem Angebot von Internetanbietern zu befassen, finde ich ...								
unwichtig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	wichtig
nicht nützlich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	nützlich
nicht notwendig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	notwendig

Ich finde die Produkte von Internetanbietern ...								
nicht unterhaltsam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	unterhaltsam
nicht attraktiv	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	attraktiv
nicht ansprechend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ansprechend

Produkte von Internetanbietern ...								
sagen nichts über mich aus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	sagen etwas über mich aus
dienen anderen nicht als Hinweis für meine Person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	dienen anderen als Hinweis für meine Person
widerspiegeln nicht meine Person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	widerspiegeln meine Person


Figure 47: Page 5 of online survey (upper part).

Wie schätzen Sie folgende Aussagen hinsichtlich der Internetprodukte ein?								
Es wäre wirklich ärgerlich, diese Produkte unnötigerweise zu kaufen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Es wäre nicht wirklich ärgerlich, diese Produkte unnötigerweise zu kaufen.
Eine inadäquate Wahl von Internetprodukten wäre schlimm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eine inadäquate Wahl von Internetprodukten wäre nicht schlimm.
Eine schlechte Wahl der Produkte wäre ein grosser Verlust.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eine schlechte Wahl der Produkte wäre ein geringer Verlust.

Wie würden Sie diese Aussagen beurteilen?								
Allgemein bin ich mir in meinen Kaufentscheidungen nie sicher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Allgemein bin ich mir in meinen Kaufentscheidungen immer sicher.
Beim Kauf von Internetprodukten habe ich ein unangenehmes Gefühl.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Beim Kauf von Internetprodukten habe ich ein gutes Gefühl.
Wenn ich Internetprodukte kaufe, bin ich mir meiner Wahl nie sicher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wenn ich Internetprodukte kaufe, bin ich mir meiner Wahl immer sicher.

Weiter

Figure 48: Page 5 of online survey (lower part).

	Telekommunikationsstudie Universität Zürich Caspar Coninx, cconinx@access.unizh.ch Luisa Sirianni, Luisa.Sirianni@access.unizh.ch
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Ihre Erfahrung mit dem Internet interessiert uns. Bitte beantworten Sie die folgenden Fragen.

Bei welchem Anbieter haben Sie privat Ihren Internetanschluss?	
<input type="checkbox"/>	Sunrise
<input type="checkbox"/>	Swisscom / Bluewin
<input type="checkbox"/>	Cablecom
<input type="checkbox"/>	Andere
<input type="checkbox"/>	ich habe keinen Anschluss
<input type="checkbox"/>	ich weiss es nicht

Benutzen Sie Dienstleistungen / Produkte der Cablecom (TV, Festnetztelefon, Mobiltelefon, etc.)?	
<input type="checkbox"/>	ja
<input type="checkbox"/>	nein
<input type="checkbox"/>	keine Antwort

Falls Sie zurzeit Kunde / Kundin bei Cablecom sind, wie zufrieden sind Sie mit Cablecom? Falls Sie nicht Kunde / Kundin sind, kreuzen Sie bitte die Option "bin nicht Kunde / Kundin" an.											
	überhaupt nicht zufrieden								vollständig zufrieden	bin nicht Kunde	keine Antwort
...als Internetanbieter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...als Mobilfunkanbieter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...als Festnetzanbieter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...als Fernsehanbieter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 49: Page 6 of online survey (upper part).

Hatten Sie in der <i>Vergangenheit</i> privat einen Internetanschluss bei Cablecom?	
<input type="checkbox"/>	ja
<input type="checkbox"/>	nein
<input type="checkbox"/>	ich weiss es nicht
<input type="checkbox"/>	keine Antwort


Benutzten Sie in der <i>Vergangenheit</i> andere Dienstleistungen / Produkte der Cablecom (TV, Festnetztelefon, Mobiltelefon, etc.)?	
<input type="checkbox"/>	ja
<input type="checkbox"/>	nein
<input type="checkbox"/>	keine Antwort

Falls Sie in der <i>Vergangenheit</i> Kunde / Kundin bei Cablecom waren, wie zufrieden waren Sie mit Cablecom? Falls Sie nicht Kunde / Kundin waren, kreuzen Sie bitte die Option "war nicht Kunde / Kundin" an.											
	überhaupt nicht zufrieden								vollständig zufrieden	bin nicht Kunde	keine Antwort
...als Internetanbieter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...als Mobilfunkanbieter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...als Festnetzanbieter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...als Fernsehanbieter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Wie häufig nutzen Sie das Internet?	
<input type="checkbox"/>	täglich
<input type="checkbox"/>	mehrmals pro Woche
<input type="checkbox"/>	einmal pro Woche
<input type="checkbox"/>	2-3 mal pro Monat
<input type="checkbox"/>	seltener
<input type="checkbox"/>	keine Antwort

Weiter

Figure 50: Page 6 of online survey (lower part).

	Telekommunikationsstudie Universität Zürich Caspar Coninx, cconinx@access.unizh.ch Luisa Sirianni, Luisa.Sirianni@access.unizh.ch
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Sind Sie ...	
<input type="checkbox"/>	männlich
<input type="checkbox"/>	weiblich
<input type="checkbox"/>	keine Antwort

Ihr Alter in Jahren ...

Ihr höchster Schulabschluss ...	
<input type="checkbox"/>	kein Abschluss
<input type="checkbox"/>	Primar- oder Grundschule
<input type="checkbox"/>	Sekundar- oder Bezirksschule
<input type="checkbox"/>	Berufslehre
<input type="checkbox"/>	Mittelschule / Gymnasium
<input type="checkbox"/>	Nachdiplomstudium
<input type="checkbox"/>	Fachhochschule
<input type="checkbox"/>	Hochschule / Universität
<input type="checkbox"/>	Doktorat
<input type="checkbox"/>	keine Antwort
<input type="checkbox"/>	Sonstiges

Figure 51: Page 7 of online survey (upper part).

Falls Sie studieren ...	
<input type="checkbox"/>	Mathematisch-Naturwissenschaften
<input type="checkbox"/>	Medizinische Fakultät
<input type="checkbox"/>	Philosophische Fakultät
<input type="checkbox"/>	Rechtswissenschaftliche Fakultät
<input type="checkbox"/>	Theologische Fakultät
<input type="checkbox"/>	Vetsuisse-Fakultät
<input type="checkbox"/>	Wirtschaftswissenschaftliche Fakultät
<input type="checkbox"/>	Bauwesen
<input type="checkbox"/>	Ingenieurwissenschaften
<input type="checkbox"/>	Systemorientierte Naturwissenschaften
<input type="checkbox"/>	Übrige Wissenschaften
<input type="checkbox"/>	Sonstiges

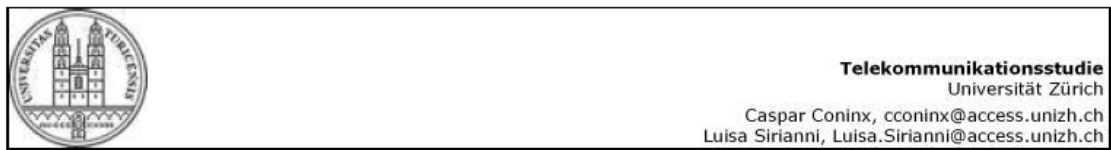
Ihr Beruf ...
<input type="text"/>

Ihr Wohnort ...
<input type="text"/>

Wie sorgfältig haben Sie diese Umfrage ausgefüllt?	
<input type="checkbox"/>	sorgfältig
<input type="checkbox"/>	eher sorgfältig
<input type="checkbox"/>	unsorgfältig
<input type="checkbox"/>	nur durchgeklickt
<input type="checkbox"/>	keine Antwort

Wenn Sie möchten, können Sie hier einen Kommentar zu dieser Studie abgeben. Wir freuen uns über Ihre Anregungen und Hinweise.
<input type="text"/>

Figure 52: Page 7 of online survey (lower part).



Herzlichen Dank für Ihre Teilnahme!

Sie haben nun alle Fragen beantwortet!

Falls Sie Fragen oder Anmerkungen haben, so freut es uns, eine E-Mail von Ihnen zu erhalten: cconinx@access.unizh.ch

Wir wünschen Ihnen einen schönen Tag!

Figure 53: Page 8 of online survey.

Zürich, den 3. April 2007

Liebe Teilnehmerin,
Lieber Teilnehmer,

Vor gut zwei Monaten hast Du an der Online-Studie unserer Lizentiatsarbeit an der Universität Zürich teilgenommen, dafür möchten wir Dir nochmals herzlich danken! Zur Erinnerung: Bei der Studie wurde Dir mitgeteilt, dass die Wirkung von Informationen aus Kundenzeitschriften der Telekommunikationsbranche auf die Leserinnen und Leser gemessen wurde. Du musstest dann Deine Meinung zu einem beschriebenen Produkt eines Internetanbieters abgeben.

In diesem Zusammenhang interessierte uns der Einfluss des Images der Telekommunikationsunternehmen auf die Beurteilung ihrer Produkte. Bei der Kundenzeitschrift handelte es sich um eine selbstkreierte und nicht real existierende Kundenzeitschrift. Die Kundenzeitschrift, welche Du bewertet hast, existierte in verschiedenen Versionen, welche dieselben Informationen enthielt, aber hinsichtlich des Designs firmenspezifisch an die Cablecom, Swisscom / Bluewin, Sunrise und einem fiktiven Internetanbieter angepasst wurden.



Die Zuteilung zu den Versuchsbedingungen erfolgte zufällig. Anhand Deiner Antworten haben wir die Image-Effekte bei der Wahrnehmung von Internetanbietern untersucht und zu erklären versucht, welche Faktoren diesen Image-Effekt beeinflussen.

Figure 54: Debriefing.

6.3 Executive Summary

Two studies demonstrated the extensive effects of brand image on consumers' product ratings in the media and telecommunications sectors. Study 1 used realistic stimuli that looked exactly like original articles from *Blick* or *NZZ*, but actually consisted of the exact same text. Study 2 applied the same scenario to fictitious product descriptions of *Cablecom*, *Sunrise* and *Swisscom*. Subsequently, product quality was assessed. The ratings obtained from 220 participants in study 1 and 790 participants in study 2 are causally attributable to the manipulated brand images.

Thorough pretests and expert interviews were conducted for initial image comparisons and the construction of product stimuli and rating scales. The experimental scenario allowed for measuring strength and direction of image effects. They were also compared to the effects of involvement, knowledge, usage and customer satisfaction.

Summary of Results

- Fictitious, but realistic newspaper articles and internet access products elicited strong image effects on consumer behavior: Identical products were rated differently, depending on the associated brand image.
- Image effects were unaffected by moderating variables, such as involvement, knowledge, usage and customer satisfaction.
- Product usage (study 1) and customer satisfaction (study 2) had less impact on product ratings than brand images.

Implications for Publishers

- *NZZ* gains higher ratings in 6 of 8 relevant image dimensions.
- *Blick* is rated inferior on most specific attributes, like seriousness.
- *Blick* urgently needs a substantial image campaign. The way of distribution should be reconsidered.
- *NZZ* has a good image, but the fact that product usage does not follow the high image rating needs considerations.

- *Tages-Anzeiger* has high usage rates and a good image. The only concern is that *20 Minuten* is gaining popularity and might cannibalize it.
- *20 Minuten* is on track to its target – nothing should be changed.
- Pretests for study 1 additionally included the two brands of *20 Minuten* and *Tages-Anzeiger* as distractors. Although partly similar, *20 Minuten* has much better scores for image, liking and usage than *Blick*.

Managerial Implications for Communication Service Providers

- *Cablecom* has a slightly inferior image than its competitors on most dimensions. Image campaigns are necessary to enhance trust in this brand.
- *Sunrise* is perceived as humane and warm, but the image is somewhat fuzzy. Specific campaigns might achieve a more salient image.
- *Swisscom* appears as cold and technical. Communicating warmth and humanity might prove beneficiary.

Conclusions and Outlook

Image effects need not be bad for a brand – they can also be useful. This can be explained by comparing *Blick* and *20 Minuten*: Both are similar regarding many aspects, but usage of *20 Minuten* is a lot better in the current sample.

Image effects are also no shortcoming of human beings, either. Rather, they must be seen as adaptations to a challenging environment with sparse resources. Relying on images for product ratings saves cognitive resources.

For market researchers and brand managers, it is most important to know that images are in fact the real drivers for success, even more important than customers' involvement, knowledge, actual product usage or satisfaction. Management must also be aware of the importance of image research like the present studies, because it allows for insights that go far beyond traditional image profiling methods.

It is now necessary to find the processes underlying image effects. The present studies provide initial support that knowledge, involvement, usage and customer satisfaction, which are most often used to explain consumer behavior, may not be sufficient. This has to be confirmed in future studies.

Scientific Background

While a lot of previous image research has focused on how images can be described, maintained and modified, the present dissertation project complements to this body of research by investigating the actual effects images themselves have on consumers' judgments. The experiments were able to elicit effects that were only caused by the manipulated brand images.

The experimental setup used in the present studies is similar to a scenario well known in the research on social cognition, where labeling effects were investigated by applying labels to otherwise unchanged stimuli. When such a stereotypical label was applied, an individual was likely to get assigned to a group by schematic processes (e.g. Macrae, Milne & Bodenhausen, 1994). The present study used this scenario for the first time as a measure for multidimensional product ratings in a consumer psychological setting. The product ratings obtained may now be causally attributed as main effects of the image manipulation.

The experiments further yielded two indirectly measured product rating profiles that express the prevailing images about the respective brands. These profiles can be compared to each other. The differences of such comparisons can be explained by the extrinsic cues that constitute brand image. This procedure is a valuable indirect measure for brand image, superior to traditional survey-based image profiling.

6.4 Lebenslauf

Persönliches

Name	Fichter
Vorname	Christian
Adresse	Florastrasse 55, 8008 Zürich, Schweiz
Telefon	079 672 44 12
E-Mail	ch.fichter@fichter.ch
Geburtsdatum	21. April 1971
Geburtsort	St. Georgen, D. 1979 Umzug in die Schweiz und Einbürgerung

Ausbildung

1993 - 2002	Studium der Psychologie in Zürich bei Prof. Dr. Norbert Bischof und Prof. Dr. Wolfgang Marx. (Unterbruch des Studiums von 1996-1999 zwecks Firmengründung.) Nebenfächer: Informatik (Prof. Dr. Peter Stucki), Neurophysiologie (Prof. Dr. Marie-Claude Hepp-Reymond).
1991	Ausbildung zum Segellehrer und Erwerb des Hochsee-Segelscheins, Kilchberg ZH.
1984 - 1991	Wirtschaftsgymnasium, Solothurn. Matura im Februar 1991.

Berufstätigkeit

Seit 9/2003	Assistent am Psychologischen Institut der Universität Zürich, Sozial- und Wirtschaftspsychologie. Forschungsgebiete: Konsumentenpsychologie und Behavioral Economics. Lehrveranstaltungen und Betreuung von Arbeiten zu den Themen Konsumentenverhalten, Marktforschung, Image, Marketing, Finanzpsychologie, Mobile Computing, Online-Methodik.
4/2003 - 8/2003	Assistent am Institut für Informatik, Universität Zürich. Forschungsgebiet: Psychologische Auswirkungen von Computergebrauch und Mobilkommunikation.
7/2002 - 3/2003	Assistent am Psychologischen Institut der Universität Zürich, Allgemeine Psychologie. Forschungsgebiete: E-Learning und Wissensmanagement.
1996	Gründung der Firma <i>Fichter EDV Beratung</i> in Zürich. Geschäftszweck: Internet- und IT-Beratung und -Projektleitung.
1991 - 1993	Segellehrer und Skipper, Segelschule Veleta, Kilchberg ZH.

Berufstätigkeit während des Studiums

3/2000 - 1/2001	Projektleiter E-Commerce beim Internet-Startup <i>Skim.com</i> , Zürich.
1999 - 2003	Regelmässiger Mitarbeiter der <i>Computerworld</i> . Schwerpunkte: Mobile Computing, Datenanalyse-Tools, Wissensmanagement, Umfrage-Software, Betriebssysteme, Office-Suiten, Groupware.
1995 - 2003	Selbständiger IT-Berater und Projektleiter
1994 - 1999	Fachjournalist für IT und Kommunikation, redaktionelle Mitarbeit bei <i>M+K Computermarkt</i> und <i>Publisher</i> .

Weitere Tätigkeiten

8/1999 -10/1999	Praktikum bei <i>Manres AG</i> , Zollikon, Fachbereiche Human Resources und Assessment
1994 - 1998	Wissenschaftliche Hilfskraft am Psychologischen Institut, Universität Zürich.
1994 - 1997	Vertreter der Studierenden in der Institutskonferenz des Psychologischen Instituts, Universität Zürich.
1993 - 2002	Engagement in verschiedenen studentischen Arbeitsgruppen. Vorstandsmitglied und Präsident des Fachvereins Psychologie. Aufbau der Arbeitsgruppe Onlineforschung.

Kenntnisse und Fähigkeiten

Methoden	Umfassendes Repertoire quantitativer und qualitativer Methoden der empirischen Sozialforschung. Profunde Kenntnisse von Literaturdatenbanken und Internet. Weiterbildungen in Arbeitsmethodik, Projektleitung, Gesprächsführung und Didaktik.
Sprachen	Deutsch: Muttersprache Englisch: verhandlungsfähig, mündlich und schriftlich Französisch: verhandlungsfähig, mündlich
IT	Standardsoftware (Office & Multimedia), Betriebssysteme (Desktop und Server; MacOS, Windows & Linux), Groupware (Exchange), Webserver (IIS, LAMP). Datenanalyse-Werkzeuge wie SPSS, Statistica, R, PHPSurveyor/Limesurvey, Globalpark Umfragecenter/EFS Survey. Webdesign (Dreamweaver, Flash, Fireworks, Photoshop) und Programmierung (PHP, HTML, Javascript, Visual Basic).

Weitere Interessen

Sport, Lesen, Musik